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EME JOURNAL

SPRING 1993

EXERCISE MASTER CRAFTSMAN

MARCH 1992 - OCTOBER 1992



SAIL
DRIVE
CANOE
TREK
FLY



ARTE ET MARTE



Canada



A replica of Samuel de Champlain's Astrolabe (Made by 202 Workshop Depot, Montreal).

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The EME Journal is the magazine of the Land Electrical and Mechanical Engineers, published at NDHQ under the terms of reference of the Director General Land Engineering and Maintenance and the LEME Branch Adviser. The purpose of the publication is to disseminate professional information among members and exchange opinions, ideas, experience and personnel news, and promote the identity of the LEME Branch.

The EME Journal depends upon its readers for content. Articles on all aspects of the Electrical and Mechanical Engineering System, photographs, cartoons, people news and comments are solicited. Readers are reminded that the Journal is an unclassified and unofficial source of information. The contents do not necessarily represent official DND policy and are not to be quoted as authority for action.

Contributors are asked to submit the original text typewritten, double spaced, paper size as herein. Photos should be sharp, glossy black and white prints with captions typed separately. Personnel should be identified in all cases, both text and captions, by rank, initials, surname, trade and unit.

The editor reserves the right to reject and edit any editorial material and while every effort is made to return artwork and photos in good condition the Journal can assume no responsibility for this.

Forward

This SPECIAL EDITION was compiled by Major Arthur J. Peters REME who is the British Army Exchange Officer on the staff of DGLEM at NDHQ Ottawa. The articles summarises a most ambitious and adventurous expedition which was undertaken last year across the Atlantic Ocean and Canada involving British Army and Canadian Forces (Land) personnel in:

- Open ocean, lake, river and canal sailing;
- Wilderness white water canoeing;
- Mountain trekking; and
- Sky diving.

The expedition was titled Exercise MASTER CRAFTSMAN and was set up to celebrate the 50th Anniversary of the formation of the British Army Corps of the Royal Electrical and Mechanical Engineers (REME) with an objective of fostering the relationships between the EME organizations of the British Army and of the Canadian Forces (Land).

Major Peters, assisted by Master Warrant Officer (now Captain) Gord Goddard LEME, was responsible for:

establishing the logistic and administrative support plan for all the Canadian phases of the expedition;

setting up and coordinating the participation of all Canadian Forces personnel; and

arranging the reception and dispersal, in Canada, of all the British Army and Canadian Forces participants.

The articles are a compilation of edited extracts from the journals kept by the participants.

ARTE ET MARTE

Astrolabe Attributed to Champlain

Made in 1603; Found in 1867

In May 1613, Samuel de Champlain travelled up the Ottawa River. To avoid the rapids, he chose a course through a number of small lakes near Cobden, Ontario. This route did not prove easier. Champlain and his men were forced to portage and to climb over and under fallen logs at one particularly difficult point by Green Lake, now known as Astrolabe Lake. It was here, according to several nineteenth-century authors, that Champlain lost his astrolabe.

If this is correct, the astrolabe remained where it had fallen for 254 years. Eventually, a 14 year-old farm boy named Edward Lee found it in 1867 while helping his father clear trees by Green Lake. He had no idea of the historical importance of this strange object.

Captain Cowley, who ran a steamboat on nearby Muskrat Lake, offered Lee ten dollars for the astrolabe. Lee never received any money nor saw the astrolabe again. Cowley sold the astrolabe to R.W. Cassels of Toronto, president of the Ottawa Forwarding Company, for whom Cowley worked. He in turn sold it to a New York collector, Samuel Hoffman. The astrolabe was willed to the American Historical Society in 1942 and it remained in its collection until June 1989, when it was acquired by the Department of Communications for the Canadian Museum of Civilization.

The astrolabe attributed to Champlain is unique. It is the smallest of 35 mariner's astrolabes surviving from the early part of the seventeenth century and the only one of them from France. In addition, it is in excellent condition,

except for one missing piece, a small ring on the bottom edge of the disk, to which a weight was likely attached to help keep the instrument plumb. The ring, however, was probably broken off sometime in the late nineteenth century as it appears in an 1879 photograph of the astrolabe.

The Canadian Museum of Civilization is grateful to the Department of Communications for acquiring this astrolabe for the Museum's collection.

What is an Astrolabe?

The astrolabe is an ancient scientific instrument, dating back to 170 B.C. Complex planetary astrolabes were used to measure the altitude of celestial bodies and to track their movements. From these calculations, lati-

tude and time could also be determined. In the sixteenth century a simpler nautical or mariner's astrolabe was developed for navigational use.

The simple astrolabe consists of an outer disk with the circumference marked off in degrees. At the centre of

the disk is a movable pointer called the alidade. To use, the navigator aligned the horizontal axis of the astrolabe with the horizon. He then pointed the alidade at the sun or polar star and read its position on the outer disk. This gave him the angle of inclination of the sun

or star from the earth's horizon. By further consulting mathematical tables with the reading, the navigator could fix his latitude.

REME 50th Anniversary Celebrations

Exercise Master Craftsman

1 March 1992 - 1 October 1992

The Corps of the Royal Electrical and Mechanical Engineers (REME) is the British Army brother corps of what was originally the Corps of the Royal Canadian Electrical and Mechanical Engineers (RCEME) and which is currently titled the Land Electrical and Mechanical Engineering (LEME) Branch. To commemorate 1992 as the 50th anniversary of its wartime formation, REME arranged a number of commemorative and enterprising activities; the one with the most significance to Canadian Forces was an adventurous training expedition which took place between March and October and involved a passage from England across the Atlantic Ocean, across Canada to the Pacific Ocean and return. To mark the close affiliation between the two organizations, REME opened the expedition to participation from LEME personnel and, whilst transiting Canada, the expedition drew its logistic support from a number of Canadian Forces Bases and LEME organizations. The LEME Branch hosted several receptions for the expedition and was represented at the formal ceremonies in England on the anniversary date.

The Aim of the expedition was to replicate, as closely as possible, the expedition undertaken two hundred years previously by Sir Alexander Mackenzie who was under contract by the Hudson Bay Company to find the legendary North West Passage - a fabled water route from the Atlantic to the Pacific.

The concept of the expedition was to involve the greatest number of participants of all ages and ranks in circumstances of quantifiable and containable risk with due regard for excitement, enterprise, personal achievement and good publicity. So as to widen the opportunities for participation, the expedition was split into Phases and further split into Legs, with a team change at the end of each Leg; in total, some 180 REME and 30 LEME personnel took part.

The expedition was given the overall title of Exercise MASTER CRAFTSMAN with the individual Phases having separate names identifying their main adventurous activity and location; the Phases which principally involved the Canadian Forces were identified under the "MAPLE" title as:

- a. Exercise MAPLE SAIL. Sailing by yacht from/to the UK to/from Canada (Thunder Bay) via the Atlantic Ocean, the North American and Canadian canal and river network and the Great Lakes;
- b. Exercise MAPLE CANOE. Canoeing 2000 km along the Athabasca River, the Peace River and the Fraser River from Fort McMurray, Alberta, through Lake Athabasca and Williston Lake, to Quesnel, British Columbia; and
- c. Exercise MAPLE TRAIL. Trekking 400 km from Quesnel through the Rainbow Mountain range to the

Pacific Coast at Bella Coola using the Alexander Mackenzie Heritage Trail.

The REME teams carried, in relay, two commemorative *Talismen*. These were *Caducei* (Roman messenger's scroll carriers); one was retained through all Phases of the expedition, whilst the other was presented to the LEME Branch as the expedition departed Canada. The reciprocal Canadian presentation *Talisman* for the REME was an exact replica of *Samuel de Champlain's Astrolabe* made by 202 Workshop Depot. Champlain used the astrolabe to navigate between France and Canada in the 1600's; the original navigation instrument was lost by him near Cobden, Ontario but was rediscovered early this century and is now on display at the Canadian Museum of Civilization in Ottawa. The *Astrolabe* well characterized the challenging aspects of this modern day adventure. It was unique to Canada and was an important artifact of historical significance linking Europe and Canada; further, its manufacture in an EME workshop epitomised the skilled craftsmanship that is the cornerstone of both the LEME Branch and the Corps of REME. The *Caduceus* and the *Astrolabe* were carried back to England and presented to the REME Corps at the 50th Anniversary celebrations. The two *Talismen* are now on display in the REME museum at Arborfield, England.

The success and safety of the expedition depended very much on the support provided by Canadian Forces and RCMP organizations on route. Particular thanks must go to the following organizations which, not only, provided outstanding assistance so spontaneously, but, also, acted as most cordial hosts in entertaining the teams as the Expedition transited Canada:

The Royal Canadian Mounted Police
CFB Saint-Jean
CFB Kingston
CFB Montreal
CFB Trenton
CFB Valcartier
CFS St John's (Nfld)
CFB Toronto

CFB Borden (CFSEME)
202 Workshop Depot (Montreal)
1 Service Battalion
18 Service Battalion (Thunder Bay)
36 Service Battalion (Nfld)

Exercise Maple Sail

Marchwood (UK) - Thunder Bay (Canada) - Marchwood (UK)
1 March 1992 - 28 September 1992

Early last year the REME purchased a twelve berth, 38 ft ocean cruising yacht to sail across the Atlantic to the heart of Canada and return as part of the Corps' 50th Anniversary celebrations. After an extensive refit the yacht was commissioned and renamed MASTER CRAFTSMAN in line with the overall expedition title. This yacht was soon to become the temporary home and transport for nearly 160 British and Canadian Forces personnel as it sailed almost half the circumference of the world in six months from Spring to Fall last year.

Exercise MAPLE SAIL began in Marchwood on the South coast of England early in March, and ended there in September. So as to give the maximum opportunity to participate this Phase of the expedition was split into 13 Legs, each of approximately 2-3 weeks duration. The Legs commenced and terminated at a suitable port on the route where MASTER CRAFTSMAN was replenished and refitted as necessary, and then the old crew changed over. The effectiveness of this operation was entirely dependent upon the actions and generosity of the local host organisations which took on the difficult administrative task of arranging docking for the yacht, logistic support, the reception of the relief crews and the despatch of the outgoing crews. Before arriving in America at the estuary of the Hudson River, New York, MASTER CRAFTSMAN had crossed the



The yacht MASTER CRAFTSMAN beating up the Saint Lawrence River.



MWO Goddard at the helm of MASTER CRAFTSMAN crossing the Atlantic Ocean in fairweather.

Atlantic, passing through the Azores and Bermuda. Throughout the North American and Canadian Legs, and on the final homeward Leg back across the Atlantic, the crews included Canadian Forces personnel; and the host organizations at the change over points were primarily local LEME units and Base/Station Maintenance Organizations. The nine Legs on route through North America and Canada were:

Exercise MAPLE SAIL 1

- Leg 5 The Hudson River through Lake Champlain to the St Lawrence River; and Montreal to Kingston.
- Leg 6 Kingston to Georgian Bay across Lake Ontario, Lake Erie and Lake Huron.
- Leg 7 Georgian Bay to Thunder Bay across Lake Superior.

Exercise MAPLE SAIL 2

- Leg 8 Thunder Bay to Georgian Bay.
- Leg 9 Georgian Bay to Kingston.
- Leg 10 Kingston to Trenton.
- Leg 11 Trenton to Quebec City.
- Leg 12 Quebec City to St John's NFLD.
- Leg 13 St John's NFLD to Marchwood (UK).

The Talismen which had been safely carried on the MASTER CRAFTSMAN from UK across the Atlantic, were relayed from crew to crew at the end of each Leg in Canada; at the end of Leg 7 the Talismen were transported overland to the team on Exercise MAPLE CANOE and thereafter relayed to the team on Exercise MAPLE TRAIL. At the end of Exercise MAPLE TRAIL one Talisman was then returned to the custody of the crew of MASTER CRAFTSMAN at the beginning of Leg 13 for carriage to UK.

Exercise Maple Sail 1 (Leg 5)

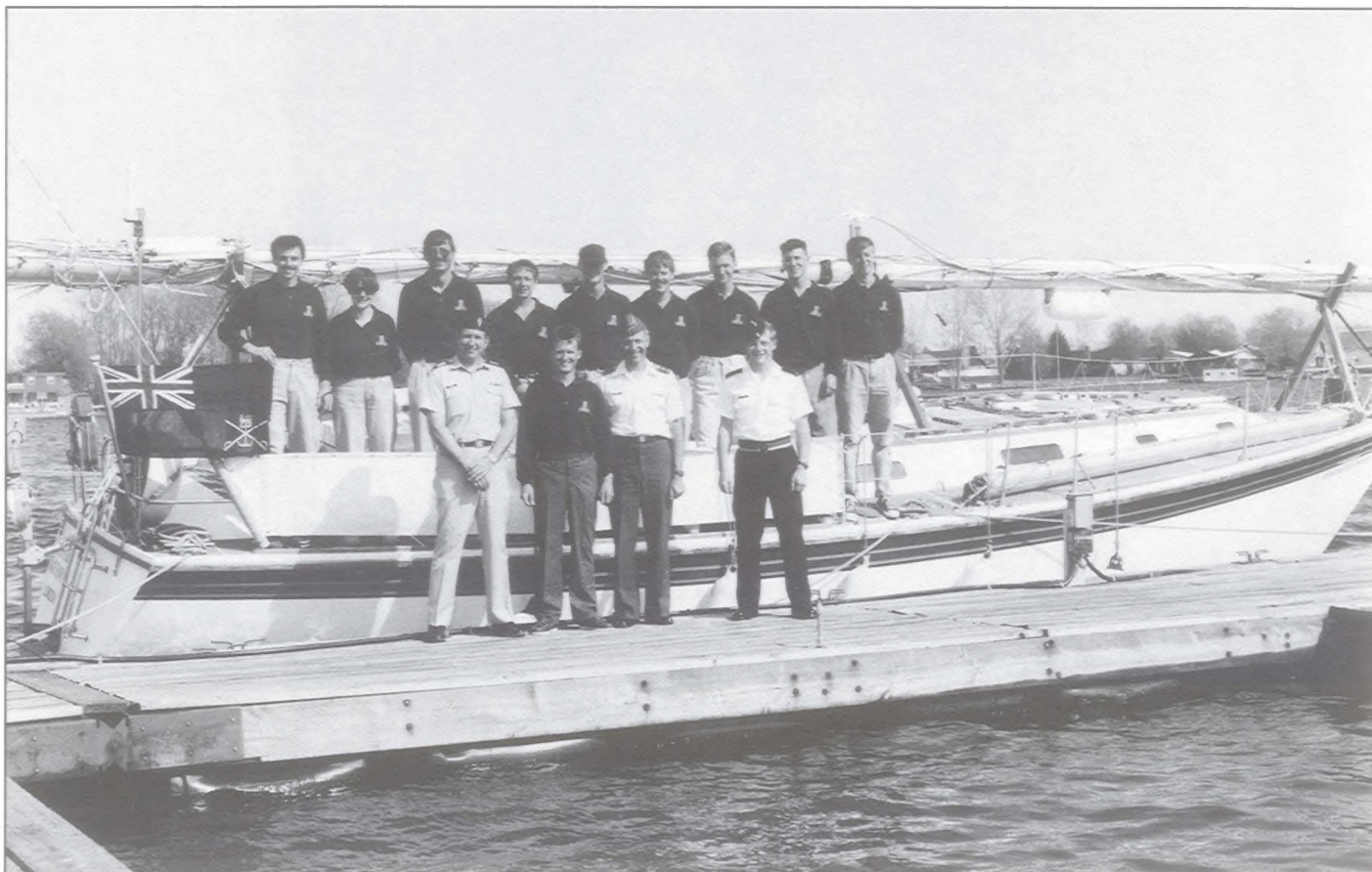
New York - Kingston (Ontario)

7 May 1992 - 22 May 1992

In the afternoon of 8 May 1992 we motored to Albany in preparation for our first main hurdle, the Champlain Canal system. The crew became familiar with the boat as we cruised up through the Champlain Canal and we passed some picturesque countryside on the way. The skipper and mate were the only qualified sailors among the crew, but as most of the trip was to be under motor, the learning curve was easily manageable. During the whole trip we enjoyed good weather and pleasant nightly stops. There were few other boats and, as it was early in the season, the Marinas were quiet. It had only been three weeks before that the locals had been ice fishing on the lakes and, needless to say, swimming was not recommended!

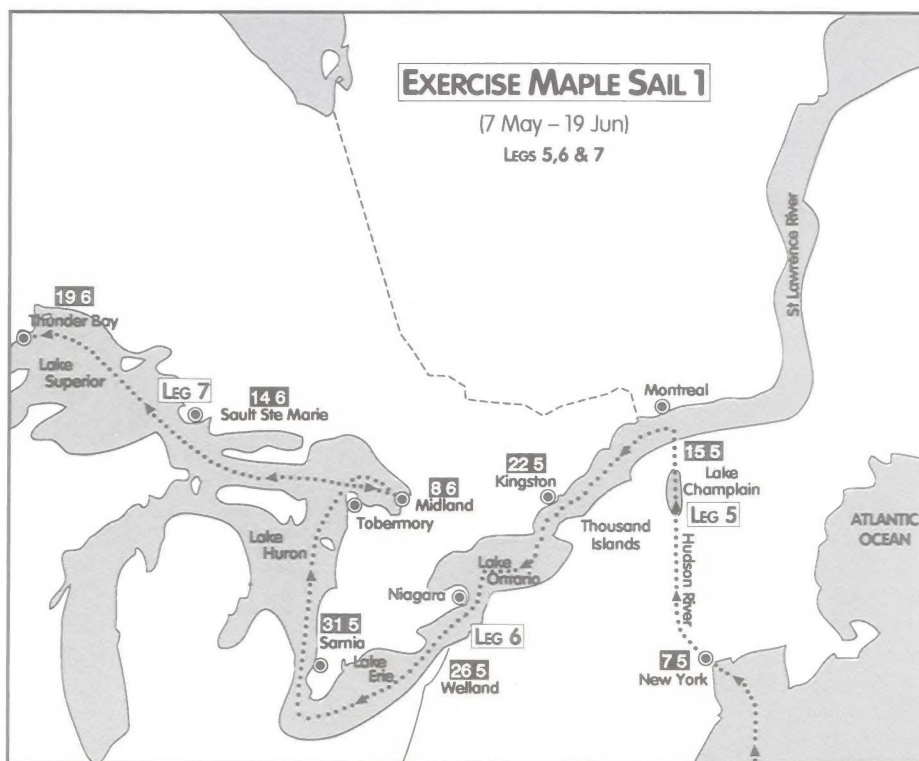
On 10 May we entered Lake Champlain and by this time it was a great relief to see some open water and get away from the claustrophobic atmosphere of the canals. By the afternoon of 11 May we had crossed into Canada where it meets America at the north end of Lake Champlain, and by that evening we had moored at Saint-Jean-sur-Richelieu at the foot of the Richelieu Canal System which leads to the Saint Lawrence River and the city of Montreal. Here we were formally welcomed to Canada by the Commandant of the local Military Academy. Our original plan of getting through the canals quickly, and stepping the mast to start some 'proper' sailing, and possibly to see Niagara Falls, was foiled by the canal locks being closed until

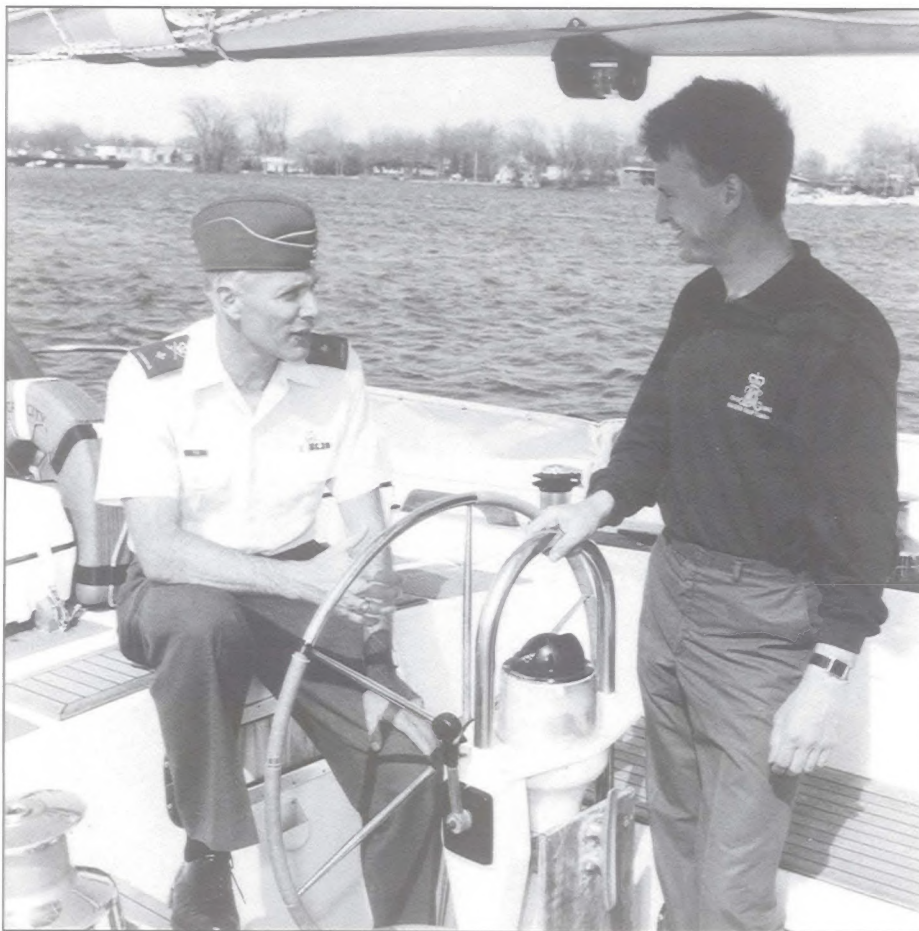
the Friday. This left us at St Jean for three days. We were 20 miles by road or 80 miles by boat from Montreal, our destination for the weekend of 16-17 May; here we had a number of visits by VIPs of the Canadian Forces. The Canadian LEME looked after us very well, and repaired some parts of the yachts equipment that was beyond our resources. The crew were taken to the LEME workshop in Montreal (202 Workshop Depot) to take part in their RCME 48th Anniversary celebrations and the Skipper presented our hosts with a commemorative plate to mark the REME 50 celebrations. People we spoke to were impressed or amazed at the scale of events running during our 50th Anniversary.



MASTER CRAFTSMAN docked at Saint-Jean-sur-Richelieu. British crew for Ex Maple Sail 1 (Leg 5) welcomed by BGen Emond (Commander CFB Saint-Jean) and LCol Dufour (BTSO CFB Saint-Jean).

On Friday 15 May the canal system opened and we were on our way. We were passing through the locks with two other yachts that were short-handed and slowing our progress. As we were "awash" with crew, three were despatched to assist the other yachts in navigating the system; this helped speed things up, but it was quickly becoming apparent that we would not make the last lock (which stood between us and the St Lawrence River) before it closed. At the penultimate lock the Skipper used some smooth talking with the lock system Manager and, to our surprise and delight, the Manager agreed to keep the last gate open for as long as was required. In the event, the lock system stayed open an extra two hours. It would have taken less time, but the steering of a yacht to which two of our crew members had been sent to help had seized. We returned to assist the yacht, towing it to a nearby jetty and retrieving our crew members before completing the system.





BGen Emond discussing nautical matters with the British skipper of MASTER CRAFTSMAN.

It was dusk when we arrived at Sorel, on the St Lawrence River and the mast could now be stepped; this was a relatively easy operation, but the local audience were entertained by our antics. With the mast in place the decision was made to cruise overnight to Montreal, giving the crew some night sailing experience. Shortly after commencing the journey the Skipper called everyone up on deck to see just how big, dark and fast the other river users were - a large cargo ship had loomed up behind us. The lesson to keep a good watch was learnt quickly by all. The Skipper, now happy that the crew's minds had been focused on the dangers of sailing in large shipping lanes, handed the task of getting us to Montreal to the Watch Leaders. After a navigational detour and battling against currents that were taking us downstream almost as fast as were attempting to go upstream, MASTER CRAFTSMAN arrived at the marina in Old Montreal.

This was the weekend of Montreal's 350th Anniversary celebrations. MASTER CRAFTSMAN was dressed accordingly and she received a great deal of attention from the huge crowds walking around the show dock of the marina. The city was in a party mood and the crew joined in. This was complemented with a spectacular fireworks display on the Saturday evening. From being centre stage we set off towards the quieter life in Lake Ontario via another canal section. This one had vast locks designed for cargo ships and each lift was in the order of 45 ft. Just before Lake Ontario there is a region called the 'Thousand Islands'. We didn't count them but it was quite a sight. A wide range of property had been built on the islands; some full sized castles with multi million dollar 'Gin Palaces' moored at their docks, down to shacks precariously hanging onto large rocks. The recession was not apparent there.



MASTER CRAFTSMAN at the quayside.

Only the last two days saw the sails set, and the noise of the motor silenced. This was 'proper' sailing at last, and the crew had to adapt to a much more physical way of life. The Skipper instructed the crew with various nautical lessons which were absorbed by varying degrees. This was certainly more labour intensive than cruising on the motor, but gave a great deal more satisfaction. Under sail on 21 May we left the Thousand Islands and the river opened up to Lake Ontario. Our final destination was to be the Royal Military College, situated in Kingston. Once again, the superb hospitality we had been given throughout the exercise was extended to us. We had a minivan with a driver to chauffeur us round Kingston, and accommodation was laid on. We extracted ourselves from the yacht and set about the clean up prior to handing over her to the relief crew. The relief crew arrived and the handover was completed in record time as MASTER CRAFTSMAN was now in a good state of repair. Our farewells exchanged, we headed for Toronto airport and our Air Canada flight back to England.

The hospitality shown to us during the exercise (especially in Canada) was exemplary; nothing was too much trouble. The Skipper and crew would like to pass on their sincere thanks to all those concerned and we look forward to returning some day.

Exercise Maple Sail 1 (Leg 6)

Kingston (Ontario) - Midland (Ontario)

22 May 1992 - 8 June 1992

CF Participants:

Cpl Roberts (CFB Kingston)

Pte Bidner (2 Service Battalion)

The Leg we were on started on 23 May from Kingston, Ontario and was completed two weeks later passing by the Midland Canal, Lake Erie, the Detroit River, Lake Huron and finally into Georgian Bay. We met up with the British crew members in Kingston; they had a long journey from UK to Toronto and we were all grateful for the excellent administrative support and reception arrangements made by CFB Kingston. Three hours later saw the full crew settled into comfortable accommodations where we had some much needed sleep.

The following day, Saturday, we immediately set to work learning about MASTER CRAFTSMAN and equipment. We were also instructed on how to live on a yacht, how the sleeping arrangements worked, how to set sails and rescue procedures in case someone fell overboard. All were then fitted out with a safety harness, sea-boots and a very stylish and well tailored line in oilskins. We were kept busy preparing the yacht and fitting a new main sheet track as the original had been damaged during the Atlantic crossing. This proved particularly troublesome, and we were very grateful for the help of the Kingston Workshop in tailoring the replacement. Whilst we completed the last equipment preparations on board the yacht, the girls in the crew went shopping for four days' food.

Early on Sunday morning MASTER CRAFTSMAN was made ready for sailing and the engine started. There followed a very good 26-hour sail to Toronto, mostly downwind in 12 to 15 knots of breeze. We knew sailing could be fun or hard work, but nothing could have prepared us for the first night. It seemed that as soon as dinner was

completed, the crew wanted to enjoy the view off the back of the boat (sea-sickness had hit us). This combined with the fact that it was extremely cold

made for a hard and sleepless night for all. The lessons of that first night would carry us through the rest of the sail.



MASTER CRAFTSMAN cruising in good weather up Lake Huron.

One of the basic skills we quickly learned was how to keep the yacht on a straight course at night. Given a compass heading as a guide makes it sound pretty easy but trying to keep that heading is another matter entirely; because of the swells in the water and the delay in response of the steering you find yourself constantly over correcting and causing the yacht to follow a snaking path. You also have to establish a distant reference point such as a star but you then must be careful to regularly update the reference since the position of most stars changes steadily in relation to you.

MASTER CRAFTSMAN departed on Tuesday 26 May for the Welland Canal and we had a quiet passage to Port Weller. The canal which by-passes the Niagara Falls has seven locks, each lifting 15m, and a final adjustment lock close to Lake Erie which is 110m higher than Lake Ontario. Each lock is 285m long and takes about 10 minutes to fill with 25 million gallons of water under gravity. We started the transit at 2000

hrs and during the next eight hours travelled steadily over its 37.5 km length under the smooth Perkins Perama engine. Entering these vast locks at night with surging water and towering sides is a memorable experience. The next day most of the crew visited Niagara Falls and then we left at last light for Leamington on Lake Erie. We moored some 36 hours later having had to motor most of the day. There followed an excellent beat to the mouth of the Detroit River with Ray Bidner at the helm wearing the most enormous grin! In Detroit we moored in the St Aubin Marina near the Renaissance Centre.

Leaving early on Sunday 31 May we had to fight the current in the river before enjoying an excellent sail across Lake St Clair, eventually using the engine to get up river to Port Huron/Sarnia. Again an early start on Monday, initially fighting yet another very strong current under the Blue Water Bridge, and then into Lake Huron. A very lumpy day of sailing followed by

another cold night found us well up Lake Huron and we arrived at Tobermory at 1500 hrs with the sun shining and the crew in good spirits - a beautiful town with a population of 282!

In summary, we must say that the exercise was a complete success. Not only was the sailing objective reached but it also gave a chance for British and Canadian military personnel to get to know each other on a more personal level. Everybody was very impressed with the Canadian hospitality we encountered, and harbour-masters were more than willing to give us berth. Some harbour-masters even gave us discounts after they were told about what we were trying to accomplish.

As a final note, we would like to thank all the REME and LEME members for their support, and a personal thanks to all the other crew of MASTER CRAFTSMAN for great times and great friendships.

Exercise Maple Sail 1 (Leg 7)

Georgian Bay - Thunder Bay
8 June 1992 - 19 June 1992

On our arrival at Toronto we were met by the representative of the Canadian Forces and the Commandant of CFSEME. We then spent two days as guests of the Canadian LEME - they kindly provided transport, guides and accommodation. On the second day, the lads were challenged to golf by the Canadians whilst the older members took over MASTER CRAFTSMAN from the previous crew. That night both crews were guests at a barbecue where tokens of friendship were exchanged and copious quantities of tender prime beef and "Labatts" were consumed; the Canadians were perfect hosts and earned our gratitude for their help and patience.

After a farewell from the Commandant, MASTER CRAFTSMAN set out from Midland to Sans Souci. Whilst the

Skipper went below to wrestle with the Global Positioning System (GPS) which became known as "Trimble", the crew began to learn something about the boat - unfortunately there was no wind so the 60 km was completed by engine.

Next day, the weather was dismal and foggy - it was a long haul of over 110 km. The radar never worked, "Trimble" kept playing up and the fog made navigation a nightmare. This is where the experience of the Skipper came into being; we were also very grateful for the automatic fog horn.

After a nervous day, we knew we were close to our destination. This was confirmed when we heard the sound of another fog horn getting ominously closer. The Skipper sensibly ordered us to "Heave To" and then the

Tobermory ferry loomed out of the fog less than 100m distant. It towered above us and made us feel very vulnerable and insecure; however, we took advantage of the situation and followed it into the harbour.

We reluctantly left the delightful Tobermory and headed to Providence Bay - as ever the wind was against us, although it was a healthy 20 knots. We were then introduced to the infamous Canadian blackflies and mosquitoes - not even Port Watch's curry could deter the beasties.

The following day, we crossed over the North end of Lake Huron and stopped at De Tour Village in USA. On the way, three intrepid souls decided to try out their new swimming costumes. Genuinely led by Anna, Chris and John dived in

and had a race around the boat. The water temperature was about 7 degrees C and the race times would have guaranteed selection for Barcelona. It was a salutary lesson as to how quick we would need to rescue anyone going overboard.

It was then time to travel up the St Mary's River which separates Lakes Huron and Superior. The channel was narrow with 250m tankers passing either way, so we kept to one side. There is a difference of 8m between the levels of the lakes, so we had to go through a lock system. This was accomplished with speed and American know how.

Whilst at Sault Ste Marie, we tried to get charts for the onward journey and were horrified when all we could obtain was a tourist overview of the Great Lakes. It was a subdued boat that entered the fourth largest lake in the world; the temperature dropped and it became bitterly cold at times. The wind was still against us and we had no information about the harbour we were heading for. The only sign of life insisted in sucking our blood and the nearest township was eight miles away.

We continued along the South coast of Lake Superior calling at various ports. The wind continued from the NW and we were able to push MAS-TER CRAFTSMAN along at up to 9 knots until we stopped at Copper Harbour. We were welcomed here by the sight of three waving girls dressed in German costumes outside a restaurant. The older members of the crew immediately cancelled their ships pasta stew and ate ashore !!

Our penultimate stop was arguably the most interesting one, Isle Royale; this is an island game reserve famed for its large population of moose and small number of wolves. The weather forecast had prophesied poor conditions for our last sail, and we were not disappointed. The lightning seemed to be aimed straight at us and the rain came down by the bucket full; this was to be the best sail yet. The waves were up to 10ft, and we creamed along with the No 1 jib and two reefs. Thunder Bay appeared rapidly and we were glad to moor up after an exhilarating but tiring day's sail.

At Thunder Bay we were hosted by the Canadian Militia and the Navy Reserves. Within a short space of time,

details of the exercise were in the local newspaper and the Skipper was being interviewed by radio and television.

What had been achieved? We had sailed 1000 km on the largest expanse of freshwater in the World. We had experienced rough weather, sickness and the unexpected; we had sailed in dense fog and in unfamiliar waters without the benefit of detailed charts and functional navigation aids. We had reinforced the lessons of teamwork and reliability on each other; and the scenery and wildlife had been magnificent. One of the lasting impressions is that of the people we met on our passage. Everywhere we went, we were greeted with surprise that a group of Brits had sailed over the Atlantic and were working their way through the Great Lakes. We were overwhelmed by friendship and offers to help us. Finally we would wish to express our thanks to all the organisers of this adventure".

Exercise Maple Sail 2 (Leg 8)

Thunder Bay - Midland
19 June 1992 - 3 July 1992

CF Participant:

Cpl Hawkins (LETE, Ottawa)

We were welcomed at the airport by the outgoing skipper and ferried, somewhat jet lagged, to the overnight accommodation in the local Militia Armoury, where we met up with our Canadian LEME crew member, Greg Hawkins. The local media interest was handled in style by the Skipper. In the afternoon we practised sailing in the harbour, and this was to be the best sailing we were to have for several days.

On 20 June 1992 we set off for Isle Royale. We had changed our original plan from going North-about Lake Superior to virtually retracing the steps of Leg 7 and taking the Southern route on the American side. Everyone had been warned that the temperatures likely to be experienced on Lake Superior in June were much lower than one would expect for this time of year, since Lake Superior was the largest and deepest of all the Great Lakes. At first, there was wind but it was very cold and, with a quartering sea, it proved to be an uncomfortable sail. The air temperature was only four

degrees, the same as the water, and certain members of the crew were glad of the last minute purchases of additional warm clothing in Thunder Bay.

We would have liked to spend more time on Isle Royale to explore the conservation park, however, we had a deadline to reach Sault Ste Marie. We left Rock Harbour at 0730 hrs and motored the 90 km across glassy smooth water to Copper Harbour, on the US mainland.

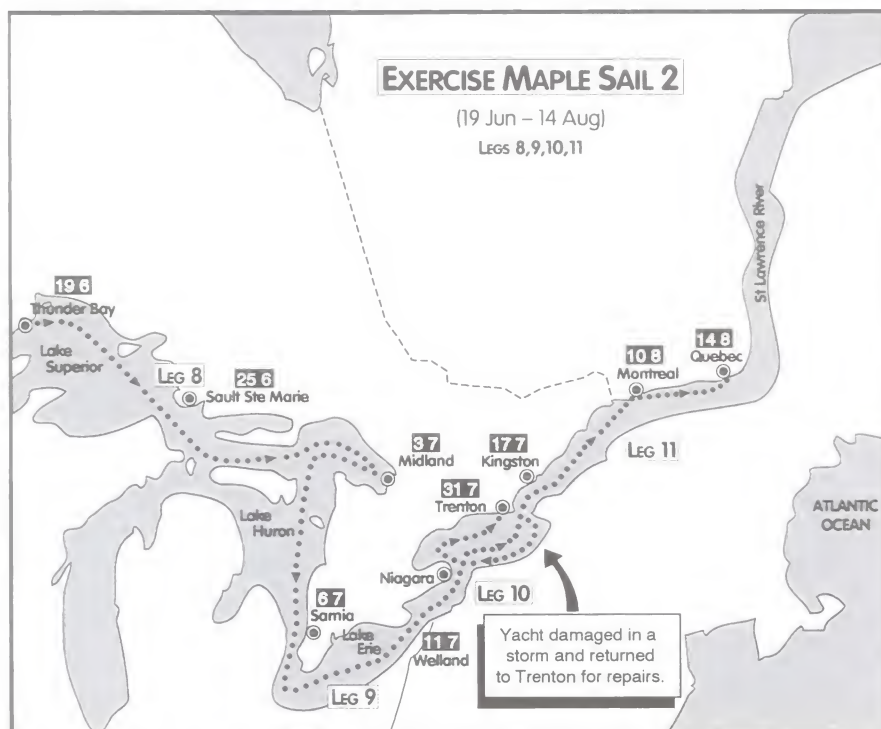
Already we were experiencing the friendliness and hospitality of local people that was to be consistent

throughout the trip. The following day, we decided to cut out one of the ports of call of the previous Leg and make the long direct journey to Grand Marais. Despite leaving early we only just managed to arrive at Grand Marais before it was dark. We had covered 160 km and once again we had to motor all the way.

Grand Marais did not have much to offer apart from excellent pastries - the facilities at the quay side were minimal. With only about 80 km to our next stop, Whitefish Point, we were able to have a more leisurely start. There was some wind to begin with and we tried sailing and even prepared the spinnaker; but temperature and wind dropped again. Whitefish Point harbour was very small and was lacking in facilities.

From Whitefish Point to Sault Ste Marie, where Lake Superior ends, was a mere 60 km. Again, we had no wind and we motored to the locks, passing many "Lakers" on the way. The "Soo" locks, as they are known, are reputed to be the largest in the world, carrying the most tonnage. There are locks on both the US and Canadian sides. The drop was 8 m and after leaving we crossed the border and moored at a Marina on the Canadian side.

The following day we set off down river; again there was no wind. Our destination this time was Drummond Island back in the US, where we were to spend the night, before getting into North Channel proper. We had now come 540 km and were about halfway. The area of enclosed water here is about 130 km by 32 km at its widest point, and offers superb cruising among the many islands and channels. We were able to spend four days in this area and, for the first time for many days, managed to do some sailing. One novel sail plan included flying both the spinnaker and the cruising chute at the same time! At one anchorage out in the skids, as we thought, we were invited ashore by the owner of a cabin on an island, not only for a sauna, of all things, but to join in with a 'fish fry' with their house party. This we did, contributing to the fare with a curry. The following morning we were allowed to use their grill to prepare our breakfast, humming birds fed only a couple of feet from us.



From there we had a short sail to Little Current, where the North Channel flows out into Georgian Bay. We spent the night there before making our way through the swing bridge which joins Manitoulin Island to the mainland and on to our next port, Killarney. A navigational error put us on some rocks or rather in them; they were slab rocks and having slid up over them we were trapped, still floating but just touching bottom. Eventually, after a bit of "trial and error", we motored off.

Once at Killarney, a check of the keel, both inside and out, showed no signs of damage - much to our relief. Once again, we enjoyed immense hospitality. The owner of Killarney Mountain Lodge kindly treated the entire crew to breakfast in his restaurant the following morning. It was now the last day of June, and the end of our trip was rapidly approaching. The following day was Canada Day, and we made for Lion's Head, a small port further down the coast, where we thought there would be firework celebrations. We were disappointed; not only were there no celebrations but the town appeared deserted (and there was not even a bar).

Our final day, 2 July, began early with a 0450 hrs departure, just as dawn was breaking. We had some 150 km to cover to reach Midland in the SE cor-

ner of Georgian Bay, and were able to sail for about six hours in the middle of the day. Once again, the wind died and we motored the last 50 km.

The next two days were taken up with boat cleaning, driving to and from Borden, Ontario, handing the boat over and linking by satellite to UK at the REME Corps weekend festival, in Arborfield. We visited Toronto and Niagara Falls, finally catching our flight back to England.

We had covered some 1150 km in the two weeks, met some very interesting people and seen a great variety of scenery and wildlife in what must be some of the finest cruising waters in the World. Above all, the most memorable aspect of the whole trip, apart from the grounding, was the warmth of hospitality that was extended to us. Our Canadian crew member, Greg Hawkins, was a most useful asset in educating us in matters Canadian both cultural and gastronomical as well as being an enthusiastic and willing crewman.

Our thanks must go to all those who organised and supported this expedition. It was an experience that will be remembered with much pleasure for a very long time. Well done MASTER CRAFTSMAN you served us admirably!

Exercise Maple Sail 2 (Leg 9)

Georgian Bay - Kingston
3 July 1992 - 17 July 1992

CF Participant:

Sgt Tollenaere (CFB North Bay)

Our Leg of Exercise MAPLE SAIL was to take MASTER CRAFTSMAN back to Kingston, Ontario, a voyage of some 1300 km. The route chosen was to depart Midland on Georgian Bay and head West to Lake Huron, then Southerly to meet up with Lake Erie. Once there, we would turn East through the Welland Canal, finally sailing across Lake Ontario to CFB Kingston. This is where we were to hand over the boat to the next crew.

We departed Midland and headed West across Georgian Bay. During this, our first day at sea, and after certain crew members decided to donate their lunch overboard, we encountered a rather severe problem - the forestay strap broke resulting in MASTER CRAFTSMAN being unable to carry sail aloft, and having to proceed under engine power until repairs could be undertaken at Owen Sound. After losing two days whilst waiting, we finally got back on track. The remainder of Georgian Bay was navigated successfully with a night sail. At sun-up we found ourselves in Lake Huron. The winds we encountered once into the Lake were unusual and not favourable; there was also a thick fog hanging. Lake Huron provided our home for the next day as we headed south to the port of Sarnia where again we encountered thick fog. This time, it came up during the night and reduced the visibility down to only a few metres - quite worrying, considering that at the time we were navigating the main shipping channel.

Having successfully worked our way down Lake Huron, we continued South along the River St Clair, into Detroit

Bay, where we made a very short visit to Detroit (courtesy of an understanding US Immigration Department). The few days that followed were taken up by heading across Lake Erie, basically running away from a tornado which, when it eventually caught up with us, had thankfully, nearly burned itself out - although one or two members of the crew suddenly realised what the boards were for on the side of the bunks!

The Welland Canal, our next obstacle, proved very interesting. Once through the massive locks of the canal, the waterway opened up to reveal Lake Ontario. We paused at Niagara-on-the-Lake and paid a visit to Niagara Falls the following day. Having taken in the spectacle of the Falls, the crew readied the yacht for our final sail. Unfortunately, during a pre-sail inspection the

engine mounts were found to be cracked. When MASTER CRAFTSMAN was finally assessed as sea worthy, we were restricted to using sail power only. We then resumed our passage and crawled out of the harbour. We then had to endure the worst possible winds again - virtually head on. We sailed to Kingston, at times not even making 1 knot, although we managed to arrive on the day arranged for the handover.

The whole crew thoroughly enjoyed their time and appreciated the chance to participate in this unique adventure. They are unanimous in expressing their gratitude to all the organisers and support staff; particular thanks must go to the Canadian Forces Bases on route, for their help and hospitality offered so readily and so generously.

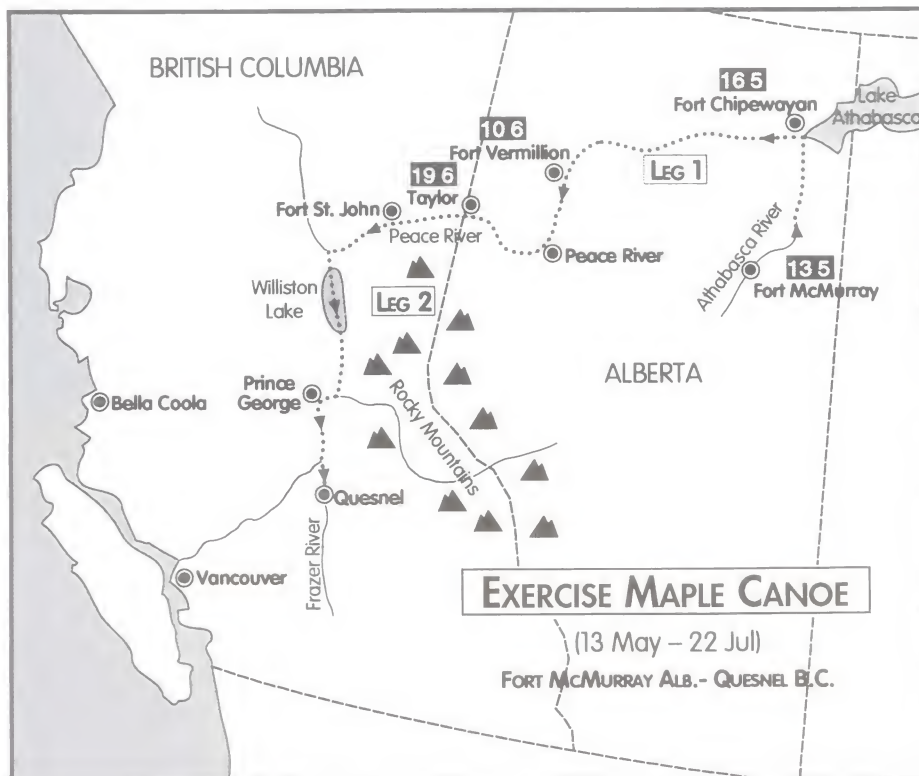


MASTER CRAFTSMAN dwarfed by a lock in the Welland Canal.

Exercise Maple Canoe

Fort McMurray (Alberta) - Quesnel (British Columbia)
13 May 1992 - 22 July 1992

The location for Exercise MAPLE CANOE was Northern Alberta/British Columbia. The first Leg of the exercise was the, canoeing from Fort McMurray (on the Athabasca River) to Fort Chipewyan (on Lake Athabasca), then up the Peace River to Peace Point, and finally, from the town of Peace River to Fort Vermillion. The second Leg started at Taylor, near Fort St John, B.C., and continued along the Peace River through Lake Williston to Summit Lake; and then continued, after a 45 km portage, to the Fraser River and onwards down river to Quesnel. The team for each Leg was fourteen personnel in seven canoes supported by a land based team of two.



Exercise Maple Canoe 1

Fort McMurray - Fort Vermillion 13 May 1992 - 19 June 1992

CF Participants:

Pte D R Labelle (2 Service Battalion)

Cpl R Durand (2 Service Battalion)

Cpl J Raedts (CFSEME)

MCpl A Lemire (CFSEME)

On Wednesday the 13th of May 1992 Cpl Durand and I volunteered as representatives of Maintenance Company, 2 Service Battalion, for Exercise MAPLE CANOE 1, which was to be the first of the two canoeing Legs of Exercise MASTER CRAFTSMAN. That afternoon we were given a brief outline on what was to take place for the next month.

On the following Monday, after some swift preparations, we set off for Calgary, Alberta. Early that morning we left Petawawa for Ottawa to catch a flight to Edmonton where a driver picked us up and took us to CFB Calgary.

The next morning we met up with some of the other participants and the Support Team. We still had a few days

in hand before we were due to move to the exercise Start Point so we used the time to good effect by helping the Support Team to draw and prepare the equipment that had been loaned to us by CFB Calgary. Once complete, we loaded up the trucks and were driven to Edmonton to meet the remaining British participants who had just flown in from UK. From Edmonton, we continued to Fort McMurray that night. We had a good rest, ate a large breakfast the next morning, and sorted out the canoes before heading to the river. For most of us it was our first experience with this type of water and long distance canoeing so we were initially a little apprehensive over the daunting journey that lay in front of us. The area was wilderness, well out of contact with civilisation and emergency assistance. Swiftly we realised that a lot of work had gone into planning this exercise and we were confident that whatever the situation, there was some contingency plan.

There were fourteen of us, four Canadian and ten British Army members, and we were paired off for each canoe; we had Grueman aluminium canoes which proved later to be an ideal selection since they were stable, light and robust; each canoe carried all our personal equipment, a 2 man tent, rations and general camp stores. Our

load was restricted by the size of the canoe, and personal equipment had to be kept to a minimum volume and weight. Our Support Team would carry the bulk stores and heavier items, but we had to carry sufficient supplies to survive if we were unable to make the RVs. This meant using nature to improvise and "living off the land" as a supplement to our field rations.

Once at the Athabasca River, we were entrusted with the two British Talismen which had been conveyed overland from Lake Superior at the end of Exercise MAPLE SAIL 1 (Leg 7). A final check was made and the paddles hit the water for the first time. On this day we covered 50 km and then met up with the Support Team for the night.

Over the next couple of days, as we travelled the Athabasca River to Fort Chipewyan the canoeing was quite hard work. At Fort Chipewyan we were greeted by the locals and the RCMP. A good time was had by all as we rested for 2 days enjoying the sights of the area and hospitality of the RCMP, who put on a barbecue especially for us.

Once back on the river, we travelled for two days against the current up the Peace River to Peace Point. After a brief stop-over, we resumed our jour-

ney on the mighty Peace River, but this time were on our way down stream. After a few more days of drifting and some paddling we arrived at a campground outside of Manning, Alberta. The next morning we were on the final stage of our journey - except for one last stop for more supplies and a little more fishing.

At Fort Vermillion we pulled out of the water and stayed in a hotel and celebrated the end of our journey. The next day, the canoes were cleaned and packed and once again we were on the road to Peace River.

To conclude, the exercise was very interesting and physically challenging. Many new friends were made, both from Britain and along the river - surprisingly, most of them were named Bob!

We would like to extend our thanks to the organizers of this exercise; the administrative arrangements were well thought out and it was clear that a lot of hard work had been done by many individuals just so that a few of us lucky ones could experience the adventure. It was something we will not forget for a long time.

Exercise Maple Canoe 2

Taylor - Quesnel - 19 June 1992 - 22 July 1992

CF Participants:

MWO D Otto (DCMEM, NDHQ)

Cpl D Manuel
(2 Service Battalion)

Cpl C Reddick
(2 Service Battalion)

Pte D Andrews
(1 Service Battalion)

On 23 June we assembled at CFB Calgary, which was to be the supporting base for the second Leg of Exercise MAPLE CANOE. From there we were transported some 13 hours by minibus to the RV to relieve the first canoeing team.

Having been passed the two Talismen by the previous team we set off on our challenging journey down the Peace

River. The first few days were a little hectic trying to get used to paddling and steering all day, whilst learning the different canoeing strokes and safety techniques required. The first thing we had trouble with was the language - the Queen's English and English as we know it are significantly different but it did not take us long to educate the "Brits" !!

From the time we left Calgary the weather was almost perfect, with plenty of sun, few clouds, a light breeze and mildly hot. The good weather followed us from Taylor B.C. until just after Fort St John and our entrance to Lake Williston - a total of about 7 days. From then on, the wind picked up continuously - as did the number of clouds, including a lot of dark ones.

The first stage of our adventure was a relatively gentle 260 km section to the town of Peace River. This allowed us to gain experience and confidence whilst developing both the strength and techniques that would stand us in good stead later to negotiate the more difficult and demanding stages. This introduction stage took us some 4 days of almost non-stop daylight travel - even our lunch meal was cooked and eaten in the canoes whilst we cruised down river assisted by the current.

Having transported our equipment overland from Peace River to Hudson Hope, we commenced the second stage of our venture to our intermediate destination at Finlay's Bay on Lake Williston.

On this stage there was no river current to assist us, but due to the surrounding mountains we encountered strong adiabatic winds and high waves. To give us extra stability we lashed pairs of canoes together; we stepped a mast using boughs of small trees cut from the river bank, and then harnessed the wind using segments of parachutes as sails.

On the morning of 29 June we set off gently paddling down river with our sails filling to a following light warm breeze and our fishing lines trailing in the swirl behind us. With little warning, the wind changed in strength and our sails billowed and strained; amid the creaks and groans of our makeshift rigging threatening to rupture and disintegrate, we felt ourselves rise as if harnessed to some mad water beast. Suddenly, we began to accelerate out of control ploughing through boiling cauldrons of white water and surfing on the crests of 6 foot waves at speeds up to 10 knots. The volume of water shipped inboard initially threatened to submerge us, but actually helped us remain stable. All thought of paddling was dismissed as we concentrated our



Shooting the rapids on the Fraser River.



About to go under on the Fraser River.

efforts in keeping our almost submerged canoes afloat and clear of the rocky outcrops which rushed past us in a grey blur. By the end of the day we had covered some 90 km.

The following day we started out again with the sails furled. We had time on our hands as we were not scheduled to make our RV (some 60 km onward at Finlay's Bay on Lake Williston for

another two days). We decided to paddle hard to arrive early; and luckily, our Support Team had anticipated this and was waiting for us when we beached. We set up camp and feasted on the fresh fish that we had just caught.

We decided to keep this time advantage and push on to Mackenzie, down the wide long Williston Lake. This was a place to respect as many boats and



Preparing to sail on Lake Williston.



The Canadian Canoe Group ready to be launched on Lake Williston.

barges had fallen victim to the strong winds and waves, and now rested in their watery graves. Typically, the elements hit us when we least expected it in the middle of the lake; grey skies and black clouds suddenly appeared over the surrounding mountains, and angry winds whipped the water into a fury as the freak storm tossed us about like toys in a bath tub. Luckily, we had

stayed in our groups with our canoes lashed together - had we been separated we would have surely been quickly awash and sunk. The tempestuous winds caught us on the bow and threatened to sweep us away from the shore, and even though we paddled with all our strength, our headway could only be measured in a few feet each minute. Eventually, we realised

the only way to get to the shore in this life threatening situation was to run before the wind and sacrifice some of the distance we had previously covered. After three hours of back breaking effort we eventually beached some 5 km downwind. We realised, suddenly, that the third canoe group which had become separated from us had disappeared without trace, after firing distress flares. Fearing the worst in the fast fading light, we scoured the horizon and shoreline for any signs of the missing group, but found none. Thankfully, the group was in fact safe, but had been blown a further 2 km downwind, out of sight, as they bailed furiously to keep themselves from sinking. Water logged and exhausted, they were guided by the beacon of our blazing campfire and eventually made the RV. As it transpired the group of three canoes lashed together had been swamped by the waves as they tried to battle into the wind, and all their equipment started to drift away. In order to salvage the canoes, they had split the group, taken to the water and swam until they had bailed out all the water they had shipped.

Despite this set back, the next day we pushed onwards, made up some lost time and arrived on schedule in Mackenzie on 3 July. The local villagers greeted us like long lost explorers and were absolutely astounded when we recounted the details of our journey; to them the water we had negotiated was treacherous, and had claimed many lives in past years; the distance we had covered in such a short time frame was a constant source of amazement. Their hospitality was most generous, and we elected to delay our departure and spend a couple of days in Mackenzie recovering our energies, repairing our equipment and replacing lost items of personal kit.

We departed Mackenzie for Prince George on the morning of 6 July, and launched ourselves again onto the lower part of Williston Lake a lot wiser and more wary!! We had a tough stage ahead of us, since we had to negotiate some of the rivers against the flow and undertake some lengthy portages. Our equipment appeared to get heavier by the minute and sapped our strength considerably. We found the only efficient way to cover the distance was to

dismount from the canoes and drag them on foot. The hours of trudging through soft sands and loose shingle dragging canoes, which appeared to have a will of their own, was a considerable test of our endurance and temper. This, followed by a final 45 km "one shot" portage, with all our equipment over undulating overgrown trails, was the "icing on the cake", but was, in fact, completed with no real hassle and in good time. At last we broke through the undergrowth to reveal the fast wash of the Fraser River, racing south to the Pacific Ocean fed by the ice melts from the heart of the Caribou and Rocky Mountain ranges.

The Fraser River was to be the most challenging stage of the exercise. The first day gave us a hint of what was in store for the rest of the stage. The river was running much faster than the Peace River and we encountered white water at almost every bend. We arrived at Prince George early after 180 km of shooting the rapids; from here we had just one stage to go to Quesnel (a further 180 km) and set off on 13 July. The Fraser River became more and more dangerous as we journeyed onwards, and, although by now we rated ourselves as quite experienced canoeists, the river was still something that should be respected. Soon, we came across a group of Indians building a raft. They told us that, if we intended to continue through the canyon ahead by canoe, we would not make it; the canyon channelled the river into a raging torrent and treacherous rocks stuck through the swirling, foaming race like the teeth of some prehistoric monster.

We had no option but to attempt to run the gauntlet, as the canyon walls were too steep to climb and portage our equipment, and we couldn't return upriver against the current.

Our leader "took the bull by the horns" and launched himself off into wild water knowing that this was a make or break obstacle. He was quickly swallowed up by race and we all feared the worst; suddenly, we saw him shoot into the air almost totally clear of the water, and then land safely on one of the back eddies. His waving signalled for us to follow, so we gingerly climbed into our canoes and, with much trepidation, launched ourselves into the hands



Harnessing the wind on Lake Williston.



On the crest of the waves down Lake Williston.

of nature. The technique was to keep the canoe pointing, at all times, in the direction of the water flow - for as soon as the canoe broad-sided, it broached, filled and flipped over. What an exhilarating experience knowing that once committed there was no way out except to run with the flow, hoping that the water would keep us clear of the sharp rocks that seemed to be themselves alive and constantly moving to try to punch out at us as we passed

round and over. Luckily, only one canoe flipped, but we all sustained some impact damage. The river flowed fast and white almost all the way to Quesnel, and we rode it as if on the back of a wild mustang which was bucking and twisting below us.

At last we caught sight of our final destination - Quesnel - and our orderly canoeing was suddenly transformed into a mad dash for the finish line; once across, we set about trying to sink the



Running the rapids on Fraser River.

other canoes in a mock battle, which resulted in almost all the team and equipment in the water - much to the amusement of the gathering crowds on the shoreline. Eventually, we beached our canoes and staggered ashore, like

a load of half drowned rats, to a warm reception from the townsfolk and the media. It was "Billy Barker" day (a famous local man) and the town was alive with fairs and parades. We were all treated as celebrities, and given

freedom of the town and open access to all activities. What a fitting end to a most exciting and demanding exercise.

Once we had stowed all the equipment for return to CFB Calgary, we handed over the two Talismen to the Support Team leader who would convey them to the start of Exercise MAPLE TRAIL.

We all felt as if we had not only achieved something extraordinary but also tested and proven the limits of our own endurance. In the short time together we had jelled as a team, and close bonds of friendship had been forged. We all felt that we had well met the overall aim of this exercise and were most grateful for the unique opportunity to participate in it.

As a foot note, on behalf of all the Canadian personnel who took part, we would like to express a word of appreciation to all those individuals and organizations who worked so hard to support this exercise and make it a success. The administrative arrangements were absolutely correct at all stages and must have been a major undertaking and a considerable problem to coordinate so effectively.

Exercise Maple Trail

Quesnel - Bella Coola

22 July 1992 - 22 August 1992

CF Participants:

Maj P Dube (SO DGLEM, NDHQ)

Lt P Bormann (LETE, Ottawa)

Cpl J Tetz (CFB Petawawa)

Cfn F Gagné (CFB Chilliwack)

Exercise MAPLE TRAIL was the trekking phase and final outward leg of Exercise MASTER CRAFTSMAN. Its aim was to retrace the steps of Sir Alexander Mackenzie, over his historic first recorded crossing of North America. The route followed ancient Carrier Indian trade trails from Quesnel,

B.C. through the Rainbow Mountain Range to the Bella Coola Valley on the Pacific coast.

The four Canadian participants met with their ten British counterparts in Calgary on the 22nd of July. There, two Talismen were handed over and the team made final preparations before moving 900 km North East to the Start Point where the Support Team had set up the first base. On our arrival, we were most grateful for the excellent farewell Barbecue that the Support Team had prepared. Our trek was split into four Stages with three ration replenishments at pre-arranged



The Team on Mt Mackenzie (viewed from a light aircraft).

points. Before we departed, group tasks were designated; these varied from wood gathering, water purification, the ominous sounding bear-watch and the key task of navigation.

Early on the morning of the 25th, the team moved out at a swift pace of 7 km/h; by noon we had that out of our system and we settled down to a comfortable pace of 4 km/h (which we maintained for the rest of the trek). At the end of the first day we had completed 20 km of the trail.

The first few days walking put a strain on even well prepared feet; the duty medic, ASM Paul Lewis was kept very busy, and became known as the 'Witch Doctor' for his painful treatment.

The highlight of the first Stage was the Sandyman Crossing, which was found to be much deeper than expected - much to the concern of the shorter team members!! The trek took us through superb wilderness country, and a wide variety of wildlife including Caribou, Hoary Marmot, Beaver, Black Bear and huge Salmon were to be seen. The team leader appeared to be a bird watcher of considerable expertise, and pointed out Bald Eagles, Ospreys and Loons along the trail.

Our first resupply, after five days walking, was at Tsacha Lake. Here we managed a little fishing with some success, and the catch was an excellent supplement to our diet of Canadian IMP's and British Arctic rations.

Along the trail we met a pair of ageing cowboys who were surveying the route on horseback. On one occasion they got into severe difficulties on an awkward creek crossing; their steeds decided to mutiny and we managed to help bring them under control and cross the creek under some pretty tricky circumstances.

On the 9th of August, after 200 km of lodgepole pine forest we finally began our ascent into the Rainbow Mountain Range. The trekking became more comfortable as we left the high temperatures behind, but the insect population then exploded.

One night, we camped beside Tommy Walker's cabin, which is regarded as a retreat for weary trekkers and horse riders along the trail. Whilst there, we

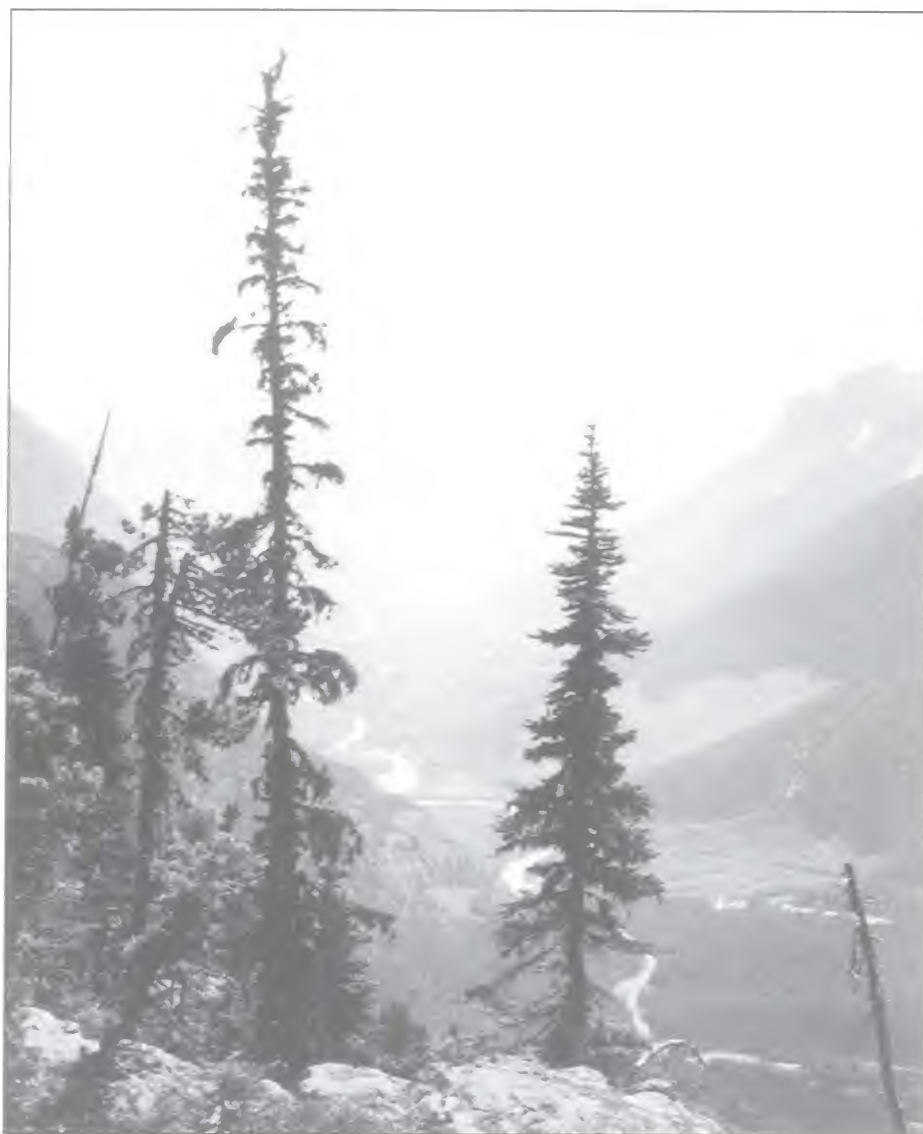


The Team on top of Mt Mackenzie.

undertook some running repairs and generally smartened up the place. The following day found us exploring an area of the Rainbow Mountains off the trail, an experience which rewarded us with some magnificent views of British Columbia's snow covered coastal

mountain range. That night, however, proved to be a restless one, as the eerie sound of wolves echoed around our tented campsite.

On 11th of August, we made our way up the Mackenzie Pass, dropped off our rucksacks and climbed into the



The end of the Trek in sight. Looking down into Bella Coola Valley.



The Team at the end of the Trek at Bella Coola greeted by Col Johnston (LEME Col Comdt).

alpine region to the highest peak in the area, Mount Mackenzie (2,146 m). This proved to be the highlight of the expedition, with the most spectacular of panoramic views and was filmed by the Support Team in a plane.

It was at this point in the trek that the days became a little cooler, much to our relief. Previously the temperatures had been as high as 35 degrees C and, despite starting our walks early in the morning, dehydration and heat exhaustion remained a constant threat.

Once down from Mount Mackenzie, we negotiated a mountain pass and began our drop into the Bella Coola Valley. Our last walking day was only 7 km long, but as we had to lose 1,200 m in height during the last half of this, we were extremely relieved when the descent was completed. At the bottom we were met by our efficient Support Team who greeted us with welcome cans of chilled beer.

After an overnight rest we walked into Bella Coola to be met at the RCMP detachment by Colonel Murray Johnston (Colonel Commandant of the LEME Branch) who congratulated us on the completion of the outward phase of the expedition.

The people of Bella Coola were extremely hospitable and we played an entertaining game of softball against them, narrowly losing. On our last morning in the valley, through the generosity of a group of local firms who clubbed together and raised \$890.00, we flew in two Beaver and a Cessna aircraft out to Mackenzie's Rock (which was the western terminus of Mackenzie's journey). A tremendous experience for us all - thanks to the goodwill of our new-found friends.

The journey back to Calgary included stops at the Columbia Icefield, Lake Louise and the Banff National Park. It was here that we saw our first and only grizzly bear - a fitting end to an excellent exercise.

We would like to thank the organizers of this venture for the opportunity for us to take part - a great deal of hard work ensured its success. Particularly, we wish to thank the Support Team for their tremendous back up work which enabled the expedition to run so smoothly.

Exercise Maple Sail 2 (Leg 10)

Kingston - Trenton

17 July 1992 - 31 July 1992

CF Participant:

MCpl Plourde (202 Workshop Depot)

My trip began on 16 July, at Kingston, where I met the rest of the crew I would be sharing the yacht with for the following two weeks. The group ranked from Corporal to Colonel, but on board all rank was forgotten. Early on 17 July we were briefed and then transported off to see the yacht. When we arrived we found MASTER CRAFTSMAN in a pitiful state - having broken from its moorings the night before and been pounded by high winds and waves against the concrete structure of the Marina. MASTER CRAFTSMAN was severely damaged at the hull/deck joint on the starboard beam and not in a seaworthy condition - what a disappointment.

MASTER CRAFTSMAN was hurriedly moved to a secure area and a quick inspection was carried out by both Skippers. Firstly, we checked the structure thoroughly and established the limits of the damage. We considered that the damaged area could be made watertight with a little work by us but we had our doubts that it would stand up to the battering it would encounter crossing the Atlantic on the final Leg. For this reason we decided it was best to have the repair completed professionally; this would be done at the end of our Leg at CFB Trenton (thanks to the excellent arrangements by the local Base in Kingston). MASTER CRAFTSMAN would have to come out of the water for a proper repair which, we were told, would take 10 days! To make matters worse the heavens chose this moment to open.

Over the next few days we set about conducting a temporary repair to the damaged area. Every loose item was removed from the yacht - even the floorboards came out. We set about stripping and servicing the fittings and every last nook and cranny was pumped out, brushed and washed.

The quay at the RMC looked just like a beach after a shipwreck, and we wondered how all this gear was fitted in originally and, more importantly, how would we get it all back in again - the Skipper assured us that he knew a way. By afternoon all the cleaning had been done, the temporary repair had been completed and all we could see was an area covered in black masking tape. The Global Positioning System (GPS) antenna was repositioned, the aft hatch was removed and resealed and many other routine maintenance tasks were completed under the direction of the Skipper. By 2200 hrs we had finished and would set sail in the morning.

Sadly, because of the time lost in dock and the time it would take to complete the full repairs, it was clear that there was no way we could keep to the planned itinerary and continue up the St Lawrence River to the Ottawa River and then to Ottawa. So the decision was taken to make a loop passage that returned to Trenton, but which would take in as many of the sights of Lake Ontario as time would permit. The relief crew was notified of the change in RV from Ottawa to Kingston, and we then prepared to depart.

Finally we took to the water and set sail in the direction of the Thousand Islands to the sound of music from the LEME march booming out from the yacht - a subtle and fitting tribute to the local LEME organizations who worked so hard to get us back underway.

The crew were tested by a series of fast tacks and sail changes. Once the Skipper was satisfied we set sail for Leak Island - even the sun shone on that day. We spent the afternoon sailing between the islands and we were all amazed at the scenic splendour passing before our eyes. In fact you could say that the four previous days of hard work were forgotten in that very instant. We anchored up for the night

in a small idyllic cove, not far from Gananoque, in the company of several other yachts. A shelter was raised over the cockpit and an excellent meal was served.

The first night we slept under the magnificent blanket of twinkling stars and even the bloodthirsty mosquitos did not detract from the beauty of the occasion. At sunrise the sails were raised and the adventure resumed. We had a quick wash and, after a short stop in Gananoque, we weighed anchor and headed for Cape Vincent, USA.

The conditions were good for sailing and everyone had the chance to helm during tacks, also "Man Overboard" drills were practised again. Then followed a friendly competition between Watches to see who could rescue the buoy in the quickest time. The winning time was 45 seconds. Cape Vincent was reached in late evening, MASTER CRAFTSMAN was replenished and after the evening meal, some of the crew went ashore to improve Anglo-Canadian-American relations by means of a darts tournament at a local inn. Some of the crew had blurred vision the next day which must have been due to the copious volumes of American beer consumed the night before in "The Anchor Inn". We set sail for Niagara-on-the-Lake for our visit to Niagara Falls and we then sailed for 34 hours non-stop. The weather was wonderful and perfect for cruising. To relieve the monotony we all fished (or shall I say "fed the fish" !) and practised some more "Man Overboard" drills. Finally we arrived at Niagara-on-the-Lake in mid afternoon, dropped anchor and went ashore. One side of the river is Canada the other 100 m away is the USA. That evening the Skipper impressed us all with his BBQ cooking skills. The crew had to wash up!

After breakfast the next day, we rented a minibus bus and managed to park less than 300 m from the Falls. Most



Taking life easy aboard MASTER CRAFTSMAN in fairer weather.

of us went on "The Maid of the Mist" boats which sail directly under both sets of Falls - this was one of the high points of the passage. Having returned the minibus and been driven back in a Cadillac we set sail for Trenton, the final destination, as this was to be where the yacht would be repaired. The Murray Canal was the way into Trenton, all we had to do was find it. That should have been easy; we had GPS and a navigator on board. Well, we missed it by about 500 m - the navigator did not believe "Trimble" and sailed us into the mud (from which, luckily, we motored back off).

Once through the canal, we safely docked at Trenton and proceeded to unload and clean everything. The mast was stripped ready for lowering the next morning. The Canadian Forces Base again assisted with the provision of a minibus and accommodation.

We had a really early start the next day as the mast had to be off and the yacht out of the water by 0700 hrs. This was achieved without incident and MASTER CRAFTSMAN was placed onto a trailer and driven away to Mile's boatyard for repair. MASTER CRAFTSMAN on a trailer was a really sad sight.

Once at the yard we used a high pressure washer to clean off the anti-fouling paint from the hull. The rest of the crew arrived later to finish off odd jobs and to re-paint the hull. We then took the opportunity of fully servicing MASTER CRAFTSMAN, knowing that our efforts would be a distinct help to the crew who were to take the yacht back across the Atlantic Ocean. We almost completely gutted and derigged the yacht during this period, and all was finished and ready on schedule for the next crew.

At the end of the day's work, most of the crew were entertained by the locals at the Trenton Carnival. As a consolation to days lost not sailing, when all was complete and the old crew on its way home by air from Toronto, the Skipper took us who remained "ashore" and challenged us to a day's golfing. Needless to say we let him win (by only a small margin) so that he felt obliged to foot the bill and buy all the drinks.

Although the lack of sailing was an unavoidable disappointment, the little we did was such good fun. The scenery we encountered and the good times we had shall remain in our memories

for some long time hence. We all worked together as a team, both on the water and whilst refitting MASTER CRAFTSMAN - strong bonds of friendship were made.

I would like to mention the outstanding assistance we had throughout the time from CFB Kingston and CFB Trenton, in particular Capt Gary Logan, Cpl Larry Mitton and MWO Gord Goddard. Not only were the crews well looked after from airport collection/delivery and the provision of transit accommodation but also, and perhaps more importantly, the strings that were pulled to get the yacht repaired so swiftly and professionally must have taken a lot of effort.

On behalf of the crew I would like to express our appreciation to all those who so readily helped us along our way and made the time so worthwhile.

As a final note I would like to express my thanks for the opportunity to represent my Branch.

Exercise Maple Sail 2 (Leg 11)

Trenton - Quebec City

31 July 1992 - 14 August 1992

CF Participants:

Maj Roberge (202 Workshop Depot)

Capt Facey (DAME, NDHQ)

The crew were sorry to hear the bad news that MASTER CRAFTSMAN had been damaged and was undergoing repairs at a boatyard at Trenton, Lake Ontario. The expected passage from Ottawa to Quebec had been changed and the yacht would now be departing from Trenton to Quebec via New York State and Montreal.

After the flight to Toronto, we were taken to CFB Trenton where we were accommodated. On arrival at Trenton, we were briefed on how the repairs to MASTER CRAFTSMAN were progressing, and told that the yacht would be launched the next day.

The next day the weather was awful; it rained heavily all day. MASTER CRAFTSMAN arrived by trailer and was launched mid-morning. After the launching, the 51 ft mast was stepped and the stays and shrouds adjusted.

In the evening the crew went downtown to meet up with some of their new Canadian friends. We had programmed a day for Niagara Falls and, the next day, that's where we went! The Canadians had kindly loaned us a minibus and we arrived at Niagara just before midday. The Falls were a magnificent sight with 32 million gallons of water a minute crashing down into Lake Ontario. We went on one of the excursion boats for a close look at the Niagara and Horse Shoe Falls. We were all given blue waterproof coats which made us look like a bunch of penguins. We drove back via Toronto where we had supper in the CN Tower (533 metres high).

The next day was Sunday and our first day of sailing. We set off for the town of Picton at 1500 hrs having previously

re-fuelled and topped up with water. Some of our charts were 14 years out of date and on passage a bridge appeared that wasn't on the chart. A careful approach was made with a crew member scaling the mast and acting as the "crows nest" lookout. In fact there was much greater clearance than we had initially thought.

We had an exciting sail to Picton, and arrived at the Marina at 2245 hrs. We were all up at 0630 hrs the following morning and we headed for Cape Vincent, New York State, USA. News had got round that the States were a lot cheaper than Canada, so we were going to restock our provisions there.

We arrived in Cape Vincent at about 1600 hrs with the Skipper visiting US Immigration to obtain entry clearance using a NATO Movement Order made out for Exercise MAPLE SAIL. The Immigration Officer looked at the document and said, "I sure as hell haven't seen one of these before." He was assured that it was an official document and we were allowed entry.

We cleared Cape Vincent at 0800 hrs. The passage for the day was through the Thousand Islands and on to Prescott on the St Lawrence Seaway. It was quite a miserable day; there was an early morning mist, overcast sky, no wind and very soon it started to rain. The crew did a splendid job guiding the yacht through the islands with the occasional help of the GPS. We had 37 course changes before we cleared the islands and entered the St Lawrence Seaway. The passage through the Thousand Islands was quite an experience, it really is a most picturesque part of Canada. The islands seemed to have at least one summer house built on them. Some of them were barely big enough to take one cabin. The small boat channels through the area were very narrow and care had to be taken not to run aground.

We arrived in Prescott Marina late that evening after a nine hour passage. Prescott Marina had been contacted on VHF and they were waiting for us with a suitable deep water berth. The Marina facilities were the best so far.

The following morning heralded an early start on passage to Cornwall. We cleared Prescott at 0800 hrs. The weather was ideal for sailing, a sunny day with a westerly wind of 15-20 knots. We approached our first lock about 1030 hrs - Iroquois Lock. We were enjoying our sailing and suddenly the lock was dead ahead; there was a bit of feverish activity - start engine - head to wind - main sail down - fenders on starboard side - followed by the question from the Skipper, 'where's the book on the procedure for entering locks?' At 1400 hrs we approached the Eisenhower Lock, and the crew broke the record for the fastest time for dropping a foresail, about half a second. The sail covered the foredeck party and caused a certain amount of confusion. The drop water level in each Lock was about 20 m. Not long after leaving the Eisenhower Lock we sighted the entrance to the Wiley-Dondero Ship Canal; the entrance was marked by a barrage of lights and buoys - our only worry was a large tanker astern. We approached the final lock before Cornwall, the Snell Lock, at 1540 hrs, arriving in Cornwall at 1800 hrs.

Early in the morning at 0615 hrs we cast off on passage for Montreal. There was very little wind but we managed to keep moving. The wind was fickle all day so the engine had a fair amount of use. We sailed through Lake St Francis and arrived at Beauharnois Lifting Bridge at about 1125 hrs. The bridge structure was massive, the centre road span went up like an elevator - quite a sight. At 1400 hrs we entered the Beauharnois Lock - another drop of 55 ft.

We continued our passage towards Montreal through Lake St Louis, passing Ile Perrot, arriving at St Catherine Lock early in the evening. We approached the last lock of the passage, St Lambert's Lock at 1855 hrs and cleared it by 1915 hrs and arrived in the old harbour of Montreal at 2030 hrs. We had a good berth in the Marina (which was virtually in the middle of the city and, on a lively part of the waterfront).

As planned we remained in Montreal for a brief stop-over. It was a rest day, combined with a visit to 202 Workshop Depot in the morning, and sightseeing in the afternoon. During the visit to the Workshop the Skipper presented a REME 50 commemorative plate and a REME Yacht Club burgee. In Montreal, it was the end of a period of festivities celebrating the 350th Anniversary of the founding of the city. In the evening we visited a sort of Mardi-Gras street festival; there were a number of bands playing, some short plays being acted out and a striptease show on a roof top illuminated by a searchlight !!

The following morning, at 0830 hrs, a little the worse for the previous night's activities, we set off on passage to the port of Sorel. We were accompanied at this Stage by Maj Giles Roberge LEME from 202 Workshop Depot. At about 1230 hrs we anchored for lunch adjacent to the town of Verchere.

We arrived in Sorel just before 1600 hrs. The Skipper got Maj Roberge to contact Sorel Marina on the VHF to ask for a berth for MASTER CRAFTSMAN. The Harbour Master was most surprised to be contacted by a British Army yacht in fluent French. That evening on the grassy banks of the Marina we had a barbecue.

The next day at about 0900 hrs we left on passage for the city of Trois Rivières; it was good weather, and we managed to do a lot of sailing, including tacking up a narrow channel bordered with rocks. At 1100 hrs on Lac St Pierre we had a short REME 50



The crew presenting a REME 50 commemorative plate to LCol Coulombe representing 202 Workshop Depot Montreal.

church service. After a good sail we arrived at Trois Rivières at approximately 1500 hrs.

Again we left at 0900 hrs and headed for Portneuf and Quebec City; the conditions for sailing were good and most of the crew had a go on the helm and at sail setting. The Seaway, in parts, was quite spectacular with rock outcrops and fast flowing narrow channels. On the shore-line, apart from settlements and towns, there appeared to be a twin-spired church every three or four miles. We passed Portneuf in the early afternoon and sailed under the massive Quebec City road and rail bridge at about 2000 hrs, to enter the Seaway approaches to the city. It was quite a sight; the Heights of Abraham, where General Wolfe fought the historic battle with the French under General Montcalm was on our port side, as was the old Citadel, with the city almost straight ahead. Just before 2200 hrs we entered the lock and, not long after, went into the Bassin Louise, in the old harbour complex of Quebec City.

The next three days were taken up with refuelling, sail checks, general repairs, cleaning and sightseeing (the latter was more popular than the former). At about 2200 hrs on 13 August we handed over a very clean yacht to the Skipper of Leg 12. We then went out for a crew farewell dinner.

Leg 11 had been a great experience. We had visited three great cities - Toronto, Montreal and Quebec City; we called into New York State, sailed on Lake Ontario and through the Thousand Islands and up to the St Lawrence Seaway. The crew varied in expertise from the totally unqualified members to the well experienced sailors; for all that, they shook down very well and became quite efficient - they were a good team. We were warmly welcomed by the Canadians who were most helpful at all times - no request was ever refused. The whole venture was made possible and organised by a small and dedicated planning team. We of Leg 11, thank them for their efforts.

Exercise Maple Sail 2 (Leg 12)

Quebec City - St John's (Newfoundland)

14 August 1992 - 1 September 1992

CF Participant:

Col Nault (DLES, NDHQ)

MASTER CRAFTSMAN was moored and inside the Bassin Saint Louise in an immaculate condition. Whilst the Mate and Skipper for Leg 12 took over the yacht, the remainder of the crew spent the night in the Valcartier Barracks, the home of 5 Combat Brigade. Our two days in Quebec City were concerned with victualling, replacing items of safety equipment, such as dan buoys, purchasing of tide tables and pilotage guides, as well as trying to repair the broken radar set, with the assistance of a LEME technician. We worked very hard on the boat, refitting the Aerogen wind generator and even replaced discreet components on the circuit boards of the radar set. We repaired the WC seat and got the electric bilge pump working as well. Besides all this we still managed to do some sightseeing around Quebec City.

MASTER CRAFTSMAN cast off from the mooring at 1900 hrs on Saturday 15 August and, whilst waiting for the lock gates to open, we had the chance to view the TransAtlantic (Quebec City to St Malo) race fleet, which had assembled in the Bassin. They were due to leave on 23 August and we hoped that we would see them go past us somewhere in the Cabot Straits. There were a number of large trimarans and also the well known monohulls LA POSTE and MERIT. We left Quebec City on a warm and sultry evening with no wind and motored down the St Lawrence River in a beautiful sunset.

The currents in the St Lawrence River are very complicated and strong, as the flooding tide opposes and finally overcomes the underlying flow out of the Great Lakes.

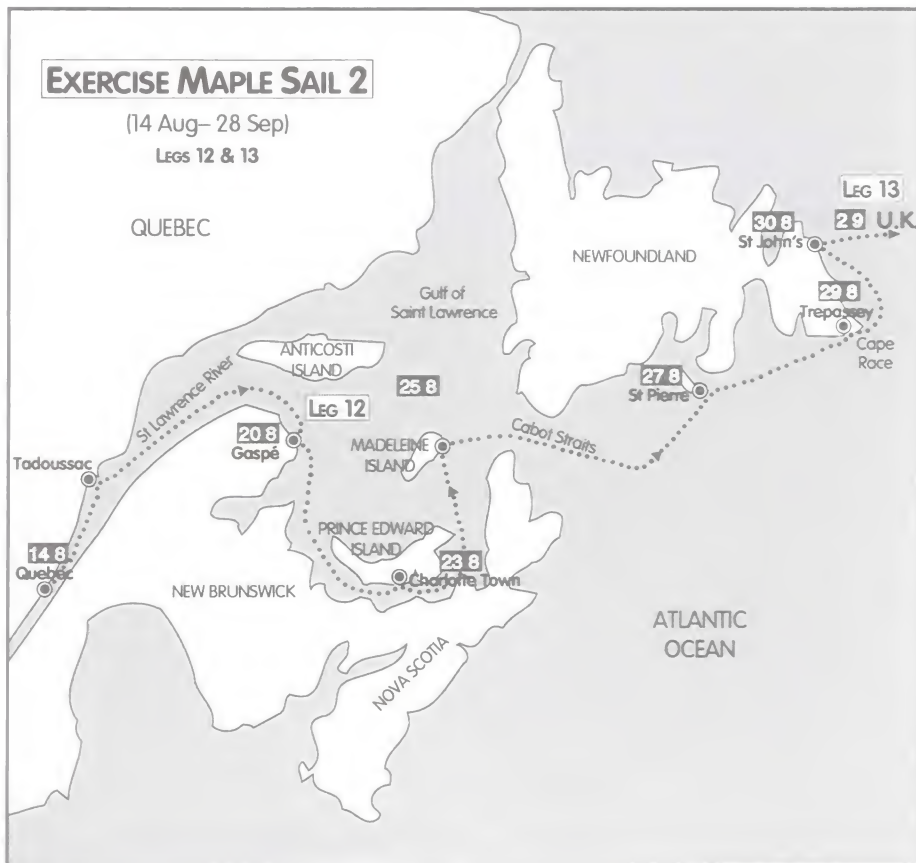
We made St Bernard de l'Isle de la Coudres just as the tide turned against us at 0330 hrs. We were very relieved

to reach the small harbour, where we waited for a favourable tide at 0730 hrs. Heading down the St Lawrence Seaway we had excellent conditions for navigation, but still no wind at all. There were many interesting mirage effects, which made distant islands appear to break up; we also had some dense and low-lying mist, roughly two feet above the water which chopped off the bottoms of the buoys, just leaving the top marks visible.

When we entered the Saguenay River the tide was running at 7 knots in our favour and "Trimble" recorded 11.5 knots over the ground! After a very quick recce of the yacht basin at Tadoussac we actually managed to do a little sail training in about 7 knots

of wind. This was the first wind we had. Tadoussac is a very popular tourist place for the viewing of whales and on our way down the St Lawrence River we had already seen a large number of the pure white Baluga Whales.

On Monday we slipped our mooring at 0800 hrs into a warm but very misty morning to view the whales, which congregate where the currents flow over a huge underwater cliff, roughly 300 m high. Unfortunately, visibility was so poor that we were only able to hear the whales, although clearly we were amongst them. Under these circumstances the advice is to keep the echo sounder transmitting, so that the whales are aware of the boat!





The crew of MASTER CRAFTSMAN at the quayside in Quebec City.



Braving the elements on a hard beat in the Gulf of Saint Lawrence.

We followed this underwater cliff all the way to Gaspé, our next port of call, and on this 400 km part of our journey, we saw a large number of whales. We had some good sailing South Westerly winds at 19 knots, but the wind was generally fickle and there were long periods where we had to resort to using the engine.

We made bread and managed to shake into our proper watch-keeping routine under sail for the first time. As we approached Gaspé, the yacht was stopped for crew swimming, with a warp and fender trailing over the stern for safety. We all swam in the clear water in the company of many seals which were very interested in our human antics.

Gaspé has a tiny marina, which proved quite interesting to access with a following 20 knot wind and a short distance in which to round up. The Yacht Club was very friendly and we exchanged pennants. There was plenty of wildlife to be seen, including a family of four ospreys hunting together and diving into the sea, quite close to the boat.

We slipped our moorings at 0815 hrs on 20 August for Prince Edward Island, and at around midday we passed quite close to the Pierce Rock - a very popular tourist attraction. We were easily making 7 knots for much of the time and we were in constant contact with the Canadian Coastguard on VHF channel 24. The weather was very unstable. We had the complete range from calm and sunny to squally and thundery, and by 0700 hrs on 21 August we had a good steady 26 knots of wind, which saw us briskly into the Northumberland Straits, which separate Prince Edward Island from the mainland. These Straits are a veritable minefield of lobster pots and marker buoys which proved quite a navigational hazard and our lookout was kept very busy over this period.

We approached Charlottetown at 0315 hrs on 22 August making our final approach carefully on the echo sounder, having identified the Yacht Club by the masts of all the yachts at anchor. We found a spare pontoon with just sufficient water to keep us afloat at the bottom of the tidal range.

Our stay on Prince Edward Island was very interesting, we managed to do some sightseeing, and resupply. In the height of summer it was hard to imagine the harsh winter climate when the whole harbour freezes for 5 months at a time such that the mail and supplies comes to Charlottetown by ice yacht from the mainland. The harbour was very beautiful and moorings only cost \$300 a year!

As we left on 23 August we were entertained by the most spectacular display of Northern Lights. They appeared as curtains of light, of a greenish colour, thin and misty, punctuated by streaks of light shooting out from the North, giving the impression of a rapid movement towards the pole; you could understand how early explorers might have been scared out of their wits by such a phenomenon.

We were bound for Isles de la Madeleine, roughly a 36-hour sail and by 0300 hrs on 24 August we could see the loom of lights from these low lying and sandy islands. As we approached the high headland of Amherst Island, the westerly wind was funnelled and increased to 30 knots in gusts. We entered 'Pleasant Bay', which was far from pleasant under the circumstances and inside this lagoon amidst the low sandy islands, it was still quite rough. Passing inside Pearl Reef we eventually found the morse code 'A' buoy, which should have been red flashing on our chart, which was clearly an error. Also the fixed red lights on the small boat harbour were marked as red flashing lights on our chart. Having overcome these difficulties we moored in the tiny yacht basin just after dawn. The idea was that we should spend the day on the islands, buy some provisions and then depart at night.

We managed to get a radar technician to come and look at the radar set. We confirmed that no transmission was taking place when the technician climbed the mast and listened with his ear pressed to the radome. He could get no further in his diagnosis, having no information or spares. He would accept no fee for his athletic and technical trouble, which was particularly refreshing.



A sail change in rough seas through the Cabot Straits.



Col Nault receiving a REME Yacht Club Commodore's burgee from the British Skipper (Col Platt) and crew of the MASTER CRAFTSMAN.



"The Pirate" Col Nault lashed to the helm of MASTER CRAFTSMAN in foul weather.

We left at 2200 hrs, under engine, as the wind had blown itself out during the day. However, by dawn we were flying along at about 7 knots and surfing down the waves at up to 8.5 knots, with the wind on the starboard beam. It was a fine sunrise and a hot morning as we hurtled through the narrowest part of the Cabot Straits, which are about 80 km wide at this point. We flew the spinnaker for the first time at

1255 hrs, reaching a maximum speed of 9.5 knots, before lowering it as the wind built up.

As we were manoeuvring to drop the sail, the first trimaran of the Trans-Atlantic race passed two cables ahead of us, doing about 20 knots and flying one hull. Our morse code 'A' buoy was a mark of their course. By 2200 hrs the wind had dropped to about 8 knots

and sharply changed direction to due East - right on the nose. As the wind increased, we were back to two reefs and the No 2 jib, beating into a rough and uncomfortable sea. It was very cold, wet and unpleasant. However, there was a full gale blowing in the Belle Isle Straits, which made our situation seem a little better, as we had rejected that route around the North of Newfoundland.

Unfortunately, we were only making a useful 2.7 knots average up-wind and so we resorted to motor sailing, to improve our pointing; this increased our speed by about a knot. We had decided we should visit Isle St Pierre on the Island of Micquelon. It was black as pitch when we reached the Straits between Isle St Pierre and Petite Micquelon, beating into 26 knots of wind and drizzle! "Trimble" was particularly useful at this point and we were able to identify an unexpected 2 knot current setting North-North-West, which was holding us up considerably. Once inside the Straits we came off the wind and shortened sail to slow MASTER CRAFTSMAN up to allow the navigator to pick his way through the treacherous and unlit Enfance Perdu Rocks.

Navigation was then straight forward on sector lights and we were soon alongside the Yacht Club inside the harbour, where we cleared both customs and immigration. Although St Pierre is a French Colony it is, in some respects, more French than France itself.

The huge trimaran HAUTE NORMANDIE, which had passed us some 12 hours earlier was also alongside, having its broken main sail battens repaired. She left at great speed as soon as they were delivered, to rejoin the race, by now, well down the fleet. The weather was closing fast and the wind strength decreasing, but we wanted to get on with the next leg to Trepassey which was about 200 km. The mist was not just thick, but also very wet, heavy and swirling. Our intention to sail at 0600 hrs was quite out of the question with only 20 m visibility. However, by midday the situation had improved to 100 m visibility and

we nudged out of the harbour, very carefully. Soon we were in open water, fog horn going and under sail again. The sun nearly showed itself and we had a very pleasant sail with 12 knots of wind on the beam, a calm sea and a very welcome drying breeze.

That night the conditions deteriorated and we had torrential rain which now added to the general unpleasantness on deck. Visibility improved a little and we were able to see the rather bizarre sight of the ghostly superstructure of a ship at about a kilometre range - the remainder being immersed in a blanket of fog. We had been listening to its fog signal for some time. Overall there was very little shipping to be seen, which under these conditions was a great relief. We were surrounded in the darkness by the light from our mast-head tri-colour which illuminated the heavy mist around the boat, in coloured sectors. During the night we damaged the radar antenna, dislodging the radome and exposing the rotating head and circuitry to the elements. We suspect this was its death knell.

By 0800 hrs we were off Cape Pine at the entrance to Trepassey, but we decided to press on to St John's NFLD and not visit this harbour, in view of the deteriorating weather forecast and in the hope of reaching St John's before the North Easterly gales set in.

Progress was slow to Cape Race on the South corner of Newfoundland, with the wind on the nose and a very uncomfortable and lumpy sea, but with a favourable current we fought our way round at 1500 hrs on Saturday 29 August. We made the best speed by hugging the coast as both light and visibility fell, and we waited for the wind to veer to the South East to allow us to make some real progress, but it hung stubbornly in the North East and so we tacked away from dangers for the night. We resorted to motor sailing to hold the yacht on the wind in quite large seas and we achieved about 3.5 knots

At 0100 hrs on 30 August the wind had come around 20 degrees and we started to make better speed. The gale



BGen Fischer (DGLEM) receiving a commemorative Talisman from Col Platt (Skipper of the MASTER CRAFTSMAN) at St John's, Newfoundland.

warning was cancelled and we covered a lot of ground during the night, finishing off under sail of the transit for St John's at 0930 hrs in thick fog. Guided by "Trimble" we approached with great caution the very narrow and steep entrance. We were all very relieved to see the North and South

heads loom out of the mist, dead on track, with impressive breakers crashing on either side.

We were met at St John's by LCol Gill Langlois, CO 36 Service Battalion. It poured with rain and we huddled inside MASTER CRAFTSMAN for a discus



Part of the "Screeching-In" ceremony at St John's. One of the REME crew of MASTER CRAFTSMAN delicately kisses the cod.

sion and enjoyed an extended lunch of some freshly acquired rations. Things did not look good for being able to dry out MASTER CRAFTSMAN for the handover the following day and we made plans to move mattresses, bunk cushions etc up to the barracks to dry out. That evening the now redundant

Canadian charts and publications were sorted out to go back and make space on board for the TransAtlantic Leg.

The following day, 31 August, was dry, bright, sunny and breezy. We laid everything out on the quayside and thoroughly dried the interior of the

yacht. By 1600 hrs MASTER CRAFTSMAN was gleaming and duly handed over to the crew of Leg 13 to start their preparation.

Much sightseeing was done in the next two days and on the evening of 2 September, BGen Fischer (DGLEM) hosted a reception in the Officers' Mess. The British Talisman, a Caduceus, was presented to the LEME Branch by our Skipper, Colonel Platt, and in reciprocation the Canadian Talisman, an Astrolabe, was entrusted to the Skipper of Leg 13 for return across the Atlantic to its final destination at Arborfield. It was a most enjoyable occasion and during the evening all members of both crews were 'Screeched In'. 'Screeching In' is a ceremony particular to Newfoundland involving a language test, an IQ test, a singing test, the drinking of a foul-tasting potion called Screech and the kissing of a dead cod fish! Everyone passed!

On 3 September both Skippers made official visits to the Mayor of St John's and the Lieutenant Governor of Newfoundland. We then saw MASTER CRAFTSMAN safely away from the quayside, out through the harbour entrance and into the Atlantic Ocean mist. Finally, we bade a sad farewell to Gill Langlois thanking him and his organization for their outstanding assistance and friendship during the brief stop-over.

In all we had covered 2000 km and had achieved some excellent sail training in a wide range of wind and weather conditions, in unfamiliar and hostile waters. Several of the crew had qualified as "Competent Crew" and two were potential "Day Skippers". We had fitted together extremely well as a team.

Our thanks must go to all those organizations which so generously provided administrative assistance and material support during our passage; particularly we would like to mention the exercise support team that worked so efficiently in catering for all our logistic requirements and responding so promptly to all our problems.

Exercise Maple Sail 2 (Leg 13)

Trans-Atlantic (St John's, Newfoundland - Marchwood, UK)
2 September 1992 - 28 September 1992

CF Participant:

MWO Gord Goddard (DPGS, NDHQ)

Leg 13 was to be the final Trans-Atlantic sailing Leg of the British REME 50th Anniversary adventurous training expedition. The Leg started from St John's Newfoundland taking a South-Easterly course to the Gulf Stream, then turning North-East and eventually ending up, almost three weeks later, on the South coast of England. I was most fortunate to be selected to represent the Canadian Forces, particularly the LEME Branch, on this, the most challenging Leg of the expedition. I took over the role as the yacht's purser. Each of the other seven REME male and female crew members came from different backgrounds and had varying levels of sailing expertise ranging from very advanced to first time sailor, and were all given specific appointments. The idea of sailing across the Atlantic Ocean in the chilly unpredictable weather of Autumn in a 38 foot yacht may not appeal to everyone, but it was certainly a trip that a lot of sailors would consider as the highlight of their sailing career.

The crew formed up in St John's where we took over the yacht from the crew of Leg 12. We were most grateful to LCol Langlois, CO 36 Service Battalion and his staff and the ever helpful members of the CFS St John's Maintenance organizations who extended to us considerable hospitality and made readily available the resources of the Station. Leg 13 was to be the most taxing and physically demanding of all the Legs and thus the preparation and equipping of the yacht justified attention to every detail. Time was short as we had a small window if we wanted to catch the winds and tides to be in UK by the deadline. I am certain that without the help we received in St John's, our departure would not have been to schedule and the yacht would not have been so well prepared.



The farewell party on the cliffs above St John's Nfld. Amongst the team are BGen Fischer (DGLEM), Col Nault (DLES-bearded), Col Platt (REME Skipper), LCol Langlois (CO 36 (Nfld) Svc Bn), Maj Peters REME (logistic coordinator and author) and CWO Rest (LEME Branch CWO).

St John's would be long remembered with affection; the traditional send off from St John's put us all in high spirits - a kiss from a cod was the last kiss any one was to get for a long time and the few extra measures of "Screech" would be sorely regretted at sea the following day. Even though there was some apprehension that this should be called Leg 14 instead of unlucky 13 we all were confident that the goodwill and blessings bestowed upon us in St John's would carry us safely across the Atlantic Ocean. We carried with us two "Talismen" (good luck charms); the British one had clearly worked for all previous Phases of the expedition and we also had entrusted to our safe custody the Canadian Talisman, a replica of Champlain's Astrolabe, which centuries before us had guided him safely across the unknown Atlantic to Canada. We were all confident that luck would be with us for our passage.

On the morning of the 2 September, the Branch Advisor of the LEME Branch, the Branch Chief Warrant Officer, key members of the support team and the crew from Leg 12 all lined the wet quayside at St John's to bid us safe passage and to watch MASTER CRAFTSMAN slip its moorings and depart the safe haven. The sky was a threatening grey and the seas were rolling when the yacht cleared the harbour entrance; looking up we could just make out through the swirling mist, the party of tiny figures on the cliffs almost above us, waving us a last farewell.

Due to the necessity of sailing on time a shake down trip was not possible so no one yet had their "sea legs". This resulted in a most unpleasant introduction to the sea for those first time sailors as well as the experienced ones. Two days later everyone was pretty much over their sea sickness.



The Skipper of MASTER CRAFTSMAN receiving a farewell gift of a bottle of "Screech" to bring comfort on the Atlantic crossing. (LCol Langlois attempting to stowaway).



MASTER CRAFTSMAN sails out from the haven of St John's Nfld into the grey Atlantic fog.

During this time the first storm had been encountered and the crew had started to work as a team.

Perhaps the best way to describe life on a small yacht crossing the ocean is to try and imagine yourself with seven other total strangers trapped in a

mobile home with no where to go but on the roof. Now in addition to moving from side to side it moves up and down at the same time. A good sense of humour and patience are very necessary qualities!!

The working space below in the galley was approximately 3 feet by 4 feet so everything was very constricted. The stove used propane and had 2 burners, a grill and an oven. Cooking on a stove that is constantly in motion requires a great deal of dexterity. The worse the weather becomes the harder and more dangerous cooking becomes. Cooking was done wearing bib type overalls (oilskins) worn normally on deck during foul weather. These had to be worn by the cook so that boiling water or anything else hot would not splash and cause injury. It was to everyone's credit that no accidents happened.

One of the most challenging jobs on board was the preparing varied meals from basic and repetitive ingredients for a group of people that all have different tastes. Each cook had to incorporate the herbs and spices as well as make the meal look appetizing. The challenge was to out do each other; many interesting variations created using the same basic ingredients. The Skipper led by example and produced some excellent meals.

The REME crew brought with them a supply of dough mix that only required the addition of sea water. This simple mixture provided the base for some excellent cooking. Imagination went wild and bread and pastries of every shape, size and description were produced; some of the treats included fruit muffins, pizza and cheese bread.

The crew was divided up into 3 watches of 2 people each. The Skipper and First Mate took turns, usually 6 hours at a time, supervising the crew and making sure that England would be reached safe and sound. The Watch had to be maintained 24 hours a day. To accomplish this each crew would do 4 hours on, followed by 4 hours off, followed by 4 hours standby during the daylight hours from 8 am to 8 pm. During the night the watches were 3 hours long with the same rou-



Master Warrant Officer Goddard at the helm of MASTER CRAFTSMAN in mid-Atlantic.

tine. This allowed the crew to rotate through a complete 24 hour duty cycle every 3 days. Additionally, the 3 watches took turns preparing meals and keeping MASTER CRAFTSMAN "ship shape". Sleeping and working became the routine with little time for anything else.

Five days after setting sail the first real mishap occurred. The weather had been overcast and the sea rolling. The sun finally broke the wind dropped and the sea calmed. This was the first opportunity to use the engine. Things started off well but soon it became apparent that something was wrong. The impeller for the engine cooling system had broken; consequently, no water was being forced through the system. The result was a partial melt down of the plastic engine exhaust baffle.

The impeller was no problem as a spare was on board; but there was no replacement for the baffle. A "field repair" was required and an opportunity for the resident Mat Tech (MWO Goddard) had presented itself. With

the baffle removed the exhaust pipe was too short to reach through the hull. If the engine was going to be used, and it was needed for emergencies, a repair would have to be done. Using a beer can and cutting off the top and bottom, a sheet of aluminium was produced. Once the worst part of the melted plastic was cut away a patch was made by forming the aluminium to fit. Station Maintenance at CFS St John's had unknowingly donated, epoxy and gun tape. Using stainless steel screws and the epoxy as a seal the patch was put in place. Once everything had set the baffle was wrapped with gun tape. The repair was a success and the engine was kept in service for the remainder of the Leg. The next day the winds returned with the usual mix of cloud cover and waves. Sailing continued with everyone comfortably into the yacht's routine.

Even in rough weather the sea can be a fascinating place. One of the most interesting sights was the sudden arrival of a school of porpoise. They

would appear out of nowhere and stay with the yacht for hours. It is hard to describe the feeling one gets when 3 porpoise suddenly burst through the middle of a 5 m wave 20 m ahead. They would circle and race in front of the yacht crossing the bow and sometimes missing by what looked like a hair's breadth. When no ships had been seen for days at a time and all that there was to look at was the endless sea, the appearance of these critters was a morale booster that one has to experience in order to really appreciate.

Everything was business as usual for the next few days. Then once again, tragedy struck. During an early morning watch one of the stays (cables, that hold the main mast in place) suddenly let loose. The potential for a total disaster was there. With the mast not properly secured other stays could have let loose and the mast could have been badly damaged or broken. This would have meant the end of sailing or even worse. The swift reaction by the Skipper and crew on watch saved the yacht by securing the loose cable using lengths of cord. The sail was released and an inspection carried out. The source of the failure was easily determined; a "U" type clamp, which passes through the deck, had broken - both ends of the clamp had sheared off due to metal fatigue. A replacement had to be found if we were to continue sailing.

The failure was an uncommon one which had not been planned for; as a result, spares were not carried. The solution was found after several hours of discussion and various attempts to manufacture a replacement with the limited resources on hand. Finally, a clamp which was slightly different was taken from the bow (front) of the yacht. Using a large crescent wrench for a purpose for which it was not intended and a little persuasion it was fitted into the deck; once the clamp was bolted in place the cable was reattached and we were safely underway again. REME/LEME once again came to the rescue in the "field".

Perhaps one of the most potentially dangerous jobs on a yacht is changing sails. It is relatively simple to do in mild weather with lots of time and an experienced crew. The weather was not very mild and in some cases the crew not very experienced. One of the golden rules of sailing is "one hand for yourself and one hand for the ship". In other words, always keep one hand free to hang on. When this is not possible securing yourself to the ship is the only alternative. On several occasions this was demonstrated when, as can be expected on a long trip, poor conditions or momentary distractions meant a crew member was thrown off balance and nearly overboard. This only had to happen once and the golden rule was enforced in the mind for a long time.

The first time that you have to go out to the front of a yacht in the middle of the night with the wind howling and the rain pounding in your face is a heart stopping experience. Total concentration is required as you have to be able to work as a team, listen to instructions over the wind and at the same time get the work done as quickly as possible. The safety of the entire crew can depend on what you do. Sails had to be changed in almost every condition possible.

It was to the credit of the Skipper and crew that no serious accidents happened, although 2 sails were destroyed; both were ripped from top to bottom when high winds caught them during a sail change.

After 15 days at sea only one day remained before land would be sighted. The hard part of the trip was ending and everyone was looking forward to stepping on "terra firma", having a good meal, a change of clothes and the privacy of a spacious bath room. The final episode of the crossing now began to unfold.

I started to feel sick right after eating lunch, British compo rations !!, canned steak and kidney pie, and decided to give it up to the sea. The pain continued to get worse and by the time I was due to go on watch it was very bad.

Taking the wheel was agony and impossible and the Skipper confined me to my bunk. After over 2 weeks at sea anything was possible so the medical book was consulted and the possibilities narrowed down. I was to find out the next day what I had dreaded - I had acute appendicitis which, under normal circumstances on land would have resulted in an emergency trip to hospital. In my case, stuck out in the Atlantic Ocean led me to some very morbid thoughts. To compound the problem, the weather then took a turn for the worse. The storm that we encountered was the worst one of the whole trip. During the night the winds and waves increased to the point where only the minimum of sail could be carried aloft safely. This required the crew to work in some of the worst and most dangerous conditions of the whole trip. Sometime in the early morning hours a monster of a wave hit the yacht midships with a shattering impact. The wave struck so hard that it forced MASTER CRAFTSMAN to broach completely over on its side, temporarily submerging the top of the mast. Everything inside was thrown about; dishes flew, crew flew and all the charts and books flew, ending up in the bunk on top of me. Good preparation had paid off; the Skipper had made sure that the main hatch and weather boards, which cover the stair way, were in place - this action prevented any water from coming inboard and allowed MASTER CRAFTSMAN to right itself almost immediately. The storm continued until morning and contact was established with the local Air Sea Rescue unit as a precautionary measure.

It was decision time. The ASR unit was prepared to come out and "medevac" me by helicopter. The Skipper and crew were in favour of this but the final decision was mine. I had come this far and I was determined to complete the Atlantic Crossing aboard MASTER CRAFTSMAN as part of the crew. The pain was just bearable and the weather was overcast but fine. The port of Falmouth (England) was 6 hours away and an ambulance would be waiting for me at the quayside. I decided to stay on.

Falmouth harbour was a most welcome sight - I had made it; I had crossed the Atlantic Ocean by sail and was confident that the worst was over. After a cursory examination I was quickly whisked away. It was decided that I should go initially to the nearby Military hospital, which in turn despatched me immediately to the Civilian hospital. The doctor there took one look and decided to operate without delay. The appendix turned out to be very bad and just ready to rupture. Luck had crossed with us !

The crew now had the opportunity to relax and do some day sailing along the coast of England and France. I recovered quickly and thanks to the tender loving care from the staff of the Truro hospital, Cornwall, was released within 4 days. I left hospital on a Monday and was taken into the home of Major Jeff Hurst REME for convalescence. Thanks to the fine care and attention from him and his family I was soon on the mend and by Friday I felt fit enough to rejoin the crew for the final part of the trip.

Upon our arrival at Marchwood we had a splendid reception given by the REME Yacht Club. MASTER CRAFTSMAN was lifted out of the water and transported to Arborfield for the closing ceremonies on 1 October.

Overall, the exercise was a great success with new friendships formed and the fraternity between REME and LEME strengthened. The spirit of cooperation with which the crew had worked and the willingness of everyone involved to help, demonstrated that "Maintainers" are, without doubt, the best anywhere. There are so many people that helped to make this trip a success that it is impossible to thank them all individually. I can only say that it has been a pleasure and a "once in a lifetime" experience to sail with and work beside such a fine group of individuals. Above all else, it was an honour to represent both the LEME Branch and the Canadian Forces on such an auspicious and challenging adventure.

Exercise Lords Leap

Arborfield (UK)

1 October 1992

CF Participant:

Cpl Waters (1 Service Battalion)

Having been safely transported to England on Leg 13 of Exercise MAPLE SAIL, the *Talismen* were transferred from the yacht *MASTER CRAFTSMAN*, to a dinghy, to a sailboard, to an antique REME vehicle and finally, as the last phase of Exercise MASTER CRAFTSMAN, named Exercise LORDS LEAP, to a joint Canadian LEME and British REME Freefall Parachute Team, to be dropped into the 50th Anniversary ceremonies at Arborfield England on the 1st October 1992.

Corporal Waters, from 1 Service Battalion, an experienced LEME parachutist, who had spent some time, recently, jumping with the Canadian Forces Freefall Display Team, *The Skyhawks*, was selected to represent the LEME Branch on this final phase of the expedition. The Colonel Commandant of the LEME Branch (Colonel Murray Johnston CD), and the Branch Chief Warrant Officer (Chief Warrant Officer Art Rest, CD) were to represent the Director General, the Branch and the Canadian Forces at the ceremonies and would receive the Canadian *Talisman* from Corporal Waters and formally present it to the Director General of the REME (Major General M Heath, CBE).

Exercise LORDS LEAP involved a skydive into a sports field in Arborfield, England, with two jumpers carrying the *Talismen*. I first learned of the exercise in May when I was called in Petawawa and asked if I would like to participate. After thinking it over long and hard, for a fraction of a second, I said I'd be delighted to.

Finally, in September after a few messages back and forth between the UK and Calgary (I'd been posted during the Summer and they still found me)



Cpl Waters LEME jumps with the REME Freefall Parachute Team into the REME 50th Anniversary parade at Arborfield (England).

and some last minute begging to the Skyhawks, for the loan of some gear, I was all set to go. On 29 September I landed at RAF Northholt, UK, where I was met by my contact with the REME freefall team. From there we travelled to Arborfield to do some filming of the *Talisman's* handover from the drivers of vintage REME vehicles to the freefall team.

From there it was off to Neatheravon Army Air Station, the home of the Joint Services Parachute Centre, where I was quartered for my stay in England. Unfortunately the weather didn't cooperate and I only got in about half a dozen jumps with the students and staff of the Parachute Centre; however, I had a good time and met people from

all branches of the British Service. Like skydivers everywhere, you don't need good weather to talk a good story.

The 1st October finally came, and promised to be quite a nice day in comparison to the previous week's weather. The day started early, with all the jumpers and ground crew gathering at Arborfield. After having our fill of tea and toast, preparations were made for the jump. Smoke and flags were rigged, equipment checked, and last minute pack jobs done. We were all then briefed on the upcoming jump, ie who was on what aircraft, exit order, expected altitude, etc.

This was to be the most jumpers ever assembled in the REME freefall team's 13 year history (15 jumpers including me). To accommodate this many jumpers, the team organizers acquired three Lynx helicopters from the British Army Air Corps, a Twin Islander from Neatheravon and an old Tiger Moth biplane from... who knows where??

At last, the time came to board our respective aircraft and make for the sky. I safely stowed the *Talisman* and climbed aboard one of the Lynx and, kneeling on the floor with 4 other jumpers, we were off. After a couple of low passes over the sports field, to do a quick recce of the DZ, we climbed to 3500 ft. The plan called for the three Lynx to fly side by side, and the jumpers to alternate exits by watching the guys exiting from the other chopper.

The Jump Master did an excellent job of choosing the exit point for the whole formation. Once he was happy with the spot, he gave us the thumbs up and away we went. I looked across to Lynx 2, saw a jumper leave, and then it was my turn. I popped my smoke and stepped off into space. Within a few seconds there were 14 of us heading towards the sports field like homesick anvils. Looking down, I could see a rather large crowd gathered for the event.

After a short canopy ride I managed to land in the target area with all the other jumpers. Not long after the last jumper touched down, the Tiger Moth made a pass overhead, carrying the REME freefall team Chief Instructor, and the much travelled British *Talisman*. After a short freefall and some exciting canopy



Cpl Waters hands over the Canadian *Talisman* to Col Johnston (LEME Col Comdt) at the REME 50th Anniversary parade at Arborfield (England).



Col Johnston and CWO Rest (LEME Branch CWO) presenting the Canadian Talisman (a replica of Champlain's Astrolabe made by 202 Workshop Depot) to MGen Heath (REME Director General).



Col Johnston and MGen Heath with the two Talismen.

work he did a perfect dead centre landing. Everyone then dropped their gear and the team formed up, with the past members (the old boys) forming the front rank.

It was time then to acknowledge the culmination of many years planning. The British *Talisman*, which had travelled half way around the world and back by every imaginable form of transportation was passed over to Brigadier Bob Cooper (who had participated in at least 3 of the Phases, including Exercise MAPLE TRAIL). On behalf of the Canadian involvement in Ex MASTER CRAFTSMAN I passed over the Canadian *Talisman* to the LEME Colonel Commandant.

Finally both *Talismen* were then presented formally to the Director General of the REME and this signified the end of Exercise MASTER CRAFTSMAN.

As for myself, I was proud to be able to participate, in an event which symbolized the friendship, cooperation, enthusiasm and professionalism of the British REME Corps and the Canadian LEME Branch.

ARTE ET MARTE